

# ENVIRONMENTAL MONITORING REPORT

|                  |                                                                      |
|------------------|----------------------------------------------------------------------|
| Project          | <b>REDI IRON ORE MINE</b>                                            |
| Location         | Redi Village<br>Vengurla Taluka, Sindhudurg Dist<br>Maharashtra      |
| Client           | MINERALS AND METALS                                                  |
| Office Address   | P. O. Redi, Tal Vengurla, Sindhudurga<br>416517, Maharashtra (India) |
| Monitoring Month | July -2025                                                           |

## ENVIRONMENTAL LABORATORY

**(Unit of Mineral Engineering Services LLP)**

(Accredited by NABL & MOEF&CC Under E(P) Act 1986)

#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,

St Thomas Town Post,

Bangalore- 560 084, Karnataka

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## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A1 - Core zone Within ML Area  
Duration : 24 Hrs  
Issue Date : 05.08.2025  
Reference IS 5182 & Lab SOP

| Date of Sampling                                           | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 11.07.2025                                                 | N031025072 | 5                                                     | 10                                                     | 35                                      | 19                                       | <20                                           | <1                                                          |
| 12.07.2025                                                 | N005325073 | 7                                                     | 11                                                     | 42                                      | 22                                       | <20                                           | <1                                                          |
| 14.07.2025                                                 | N011725073 | 6                                                     | 9                                                      | 48                                      | 25                                       | <20                                           | <1                                                          |
| 15.07.2025                                                 | N017425073 | 10                                                    | 12                                                     | 32                                      | 17                                       | <20                                           | <1                                                          |
| 25.07.2025                                                 | N028125074 | 9                                                     | 10                                                     | 40                                      | 22                                       | <20                                           | <1                                                          |
| 26.07.2025                                                 | N003025075 | 5                                                     | 9                                                      | 45                                      | 24                                       | <20                                           | <1                                                          |
| 28.07.2025                                                 | N008725075 | 4                                                     | 9                                                      | 33                                      | 16                                       | <20                                           | <1                                                          |
| 29.07.2025                                                 | N014625075 | 6                                                     | 9                                                      | 49                                      | 24                                       | <20                                           | <1                                                          |
| Limits for Industrial , Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                           | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 11.07.2025                                                 | N031025072 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.23                                     | 20                                          |
| 12.07.2025                                                 | N005325073 | 0.10                         | <0.1                           | <0.5                            | <0.5                                     | 0.20                                     | <20                                         |
| 14.07.2025                                                 | N011725073 | 0.15                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 23                                          |
| 15.07.2025                                                 | N017425073 | 0.18                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 25                                          |
| 25.07.2025                                                 | N028125074 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 20                                          |
| 26.07.2025                                                 | N003025075 | 0.15                         | <0.1                           | <0.5                            | <0.5                                     | 0.24                                     | 23                                          |
| 28.07.2025                                                 | N008725075 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.20                                     | 21                                          |
| 29.07.2025                                                 | N014625075 | 0.19                         | <0.1                           | <0.5                            | <0.5                                     | 0.23                                     | 24                                          |
| Limits for Industrial , Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arushi Kousar*  
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Dy TM - Chemical  
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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

**Name of the Client** : M/s. Minerals and Metals

**Name of the Project** : Redi Iron Ore Mine

**Sample Collected by** : Environmental Laboratory (Unit of Mineral Engineering Services LLP)

**Particulars of sample collected** : A2 - Redi village (Within 200m from the ML Area)

**Duration** : 24 Hrs

**Issue Date** : 05.08.2025

*Reference IS 5182 & Lab SOP*

| Date of Sampling                                              | Report No  | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) | Ammonia<br>(NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene<br>(C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|---------------------------------------------------------------|------------|----------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|---------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|
| 11.07.2025                                                    | N030425072 | 9                                                        | 10                                                        | 52                                         | 27                                          | <20                                              | <1                                                             |
| 12.07.2025                                                    | N004725073 | 8                                                        | 13                                                        | 48                                         | 24                                          | <20                                              | <1                                                             |
| 14.07.2025                                                    | N011125073 | 5                                                        | 11                                                        | 34                                         | 17                                          | <20                                              | <1                                                             |
| 15.07.2025                                                    | N016825073 | 6                                                        | 10                                                        | 38                                         | 21                                          | <20                                              | <1                                                             |
| 25.07.2025                                                    | N027525074 | 8                                                        | 12                                                        | 36                                         | 19                                          | <20                                              | <1                                                             |
| 26.07.2025                                                    | N002425075 | 5                                                        | 13                                                        | 32                                         | 17                                          | <20                                              | <1                                                             |
| 28.07.2025                                                    | N008125075 | 9                                                        | 14                                                        | 40                                         | 21                                          | <20                                              | <1                                                             |
| 29.07.2025                                                    | N014025075 | 7                                                        | 10                                                        | 42                                         | 22                                          | <20                                              | <1                                                             |
| Limits for Industrial ,<br>Residential, Rural and other Areas |            | 80<br>24 Hrs                                             | 80<br>24 Hrs                                              | 100<br>24 Hrs                              | 60<br>24 Hrs                                | 400<br>24 Hrs                                    | 5<br>Annual                                                    |

| Date of Sampling                                           | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 11.07.2025                                                 | N030425072 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 23                                          |
| 12.07.2025                                                 | N004725073 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 21                                          |
| 14.07.2025                                                 | N011125073 | 0.18                         | <0.1                           | <0.5                            | <0.5                                     | 0.27                                     | 20                                          |
| 15.07.2025                                                 | N016825073 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.29                                     | 25                                          |
| 25.07.2025                                                 | N027525074 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 27                                          |
| 26.07.2025                                                 | N002425075 | 0.21                         | <0.1                           | <0.5                            | <0.5                                     | 0.27                                     | 22                                          |
| 28.07.2025                                                 | N008125075 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.23                                     | 21                                          |
| 29.07.2025                                                 | N014025075 | 0.15                         | <0.1                           | <0.5                            | <0.5                                     | 0.21                                     | 20                                          |
| Limits for Industrial , Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arushi Kousar*  
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## TEST REPORT

Table No.3

### AMBIENT AIR QUALITY

|                                 |                                                                       |
|---------------------------------|-----------------------------------------------------------------------|
| Name of the Client              | : M/s. Minerals and Metals                                            |
| Name of the Project             | : Redi Iron Ore Mine                                                  |
| Sample Collected by             | : Environmental Laboratory (Unit of Mineral Engineering Services LLP) |
| Particulars of sample collected | : A3 - Gaontala village                                               |
| Duration                        | : 24 Hrs                                                              |
| Issue Date                      | : 05.08.2025                                                          |
| Reference                       | IS 5182 & Lab SOP                                                     |

| Date of Sampling                                           | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 11.07.2025                                                 | N030625072 | 6                                                     | 11                                                     | 37                                      | 16                                       | <20                                           | <1                                                          |
| 12.07.2025                                                 | N004925073 | 6                                                     | 9                                                      | 52                                      | 25                                       | <20                                           | <1                                                          |
| 14.07.2025                                                 | N011325073 | 8                                                     | 9                                                      | 38                                      | 18                                       | <20                                           | <1                                                          |
| 15.07.2025                                                 | N017025073 | 10                                                    | 12                                                     | 40                                      | 20                                       | <20                                           | <1                                                          |
| 25.07.2025                                                 | N027725074 | 6                                                     | 9                                                      | 29                                      | 16                                       | <20                                           | <1                                                          |
| 26.07.2025                                                 | N002625075 | 10                                                    | 11                                                     | 33                                      | 17                                       | <20                                           | <1                                                          |
| 28.07.2025                                                 | N008325075 | 7                                                     | 9                                                      | 39                                      | 18                                       | <20                                           | <1                                                          |
| 29.07.2025                                                 | N014225075 | 8                                                     | 9                                                      | 27                                      | 16                                       | <20                                           | <1                                                          |
| Limits for Industrial , Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                           | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 11.07.2025                                                 | N030625072 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.23                                     | 25                                          |
| 12.07.2025                                                 | N004925073 | 0.15                         | <0.1                           | <0.5                            | <0.5                                     | 0.21                                     | 21                                          |
| 14.07.2025                                                 | N011325073 | 0.21                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 22                                          |
| 15.07.2025                                                 | N017025073 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.29                                     | <20                                         |
| 25.07.2025                                                 | N027725074 | 0.17                         | <0.1                           | <0.5                            | <0.5                                     | 0.32                                     | 20                                          |
| 26.07.2025                                                 | N002625075 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 22                                          |
| 28.07.2025                                                 | N008325075 | 0.19                         | <0.1                           | <0.5                            | <0.5                                     | 0.27                                     | 23                                          |
| 29.07.2025                                                 | N014225075 | 0.22                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 20                                          |
| Limits for Industrial , Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
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By TM : Chemical  
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## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A4 - Kanyalwadi village  
Duration : 24 Hrs  
Issue Date : 05.08.2025  
Reference IS 5182 & Lab SOP

| Date of Sampling                                           | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 11.07.2025                                                 | N030725072 | 7                                                     | 10                                                     | 25                                      | 15                                       | <20                                           | <1                                                          |
| 12.07.2025                                                 | N005025073 | 6                                                     | 9                                                      | 30                                      | 16                                       | <20                                           | <1                                                          |
| 14.07.2025                                                 | N011425073 | 7                                                     | 11                                                     | 33                                      | 18                                       | <20                                           | <1                                                          |
| 15.07.2025                                                 | N017125073 | 8                                                     | 9                                                      | 41                                      | 22                                       | <20                                           | <1                                                          |
| 25.07.2025                                                 | N027825074 | 5                                                     | 9                                                      | 35                                      | 16                                       | <20                                           | <1                                                          |
| 26.07.2025                                                 | N002725075 | 10                                                    | 12                                                     | 38                                      | 17                                       | <20                                           | <1                                                          |
| 28.07.2025                                                 | N008425075 | 11                                                    | 12                                                     | 44                                      | 23                                       | <20                                           | <1                                                          |
| 29.07.2025                                                 | N014325075 | 9                                                     | 12                                                     | 23                                      | 18                                       | <20                                           | <1                                                          |
| Limits for Industrial , Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                           | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|------------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 11.07.2025                                                 | N030725072 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 21                                          |
| 12.07.2025                                                 | N005025073 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.32                                     | 25                                          |
| 14.07.2025                                                 | N011425073 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 26                                          |
| 15.07.2025                                                 | N017125073 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.29                                     | 24                                          |
| 25.07.2025                                                 | N027825074 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 28                                          |
| 26.07.2025                                                 | N002725075 | 0.19                         | <0.1                           | <0.5                            | <0.5                                     | 0.27                                     | 27                                          |
| 28.07.2025                                                 | N008425075 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 24                                          |
| 29.07.2025                                                 | N014325075 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 26                                          |
| Limits for Industrial , Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

*Arshiya Kousar*  
ARSHIYA KOUSAR  
By TM - Chemical  
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## TEST REPORT

Table No. 5

### AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A5 - Shiroda village  
Duration : 24 Hrs  
Issue Date : 05.08.2025  
Reference IS 5182 & Lab SOP

| Date of Sampling                                          | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) | Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup> | Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup> |
|-----------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 11.07.2025                                                | N030525072 | 6                                                     | 9                                                      | 37                                      | 18                                       | <20                                           | <1                                                          |
| 12.07.2025                                                | N004825073 | 7                                                     | 9                                                      | 30                                      | 15                                       | <20                                           | <1                                                          |
| 14.07.2025                                                | N011225073 | 8                                                     | 11                                                     | 35                                      | 17                                       | <20                                           | <1                                                          |
| 15.07.2025                                                | N016925073 | 6                                                     | 10                                                     | 38                                      | 19                                       | <20                                           | <1                                                          |
| 25.07.2025                                                | N027625074 | 5                                                     | 8                                                      | 27                                      | 16                                       | <20                                           | <1                                                          |
| 26.07.2025                                                | N002525075 | 8                                                     | 9                                                      | 40                                      | 21                                       | <20                                           | <1                                                          |
| 28.07.2025                                                | N008225075 | 9                                                     | 10                                                     | 47                                      | 22                                       | <20                                           | <1                                                          |
| 29.07.2025                                                | N014125075 | 5                                                     | 9                                                      | 39                                      | 20                                       | <20                                           | <1                                                          |
| Limits for Industrial, Residential, Rural and other Areas |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             | 400<br>24 Hrs                                 | 5<br>Annual                                                 |

| Date of Sampling                                          | Report No  | Lead (Pb), µg/m <sup>3</sup> | Nickel (Ni), ng/m <sup>3</sup> | Arsenic (As), ng/m <sup>3</sup> | Benzo(a) Pyrene (BaP), ng/m <sup>3</sup> | Carbon Monoxide* (CO), mg/m <sup>3</sup> | Ozone* (O <sub>3</sub> ), µg/m <sup>3</sup> |
|-----------------------------------------------------------|------------|------------------------------|--------------------------------|---------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|
| 11.07.2025                                                | N030525072 | 0.19                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 21                                          |
| 12.07.2025                                                | N004825073 | 0.12                         | <0.1                           | <0.5                            | <0.5                                     | 0.31                                     | 21                                          |
| 14.07.2025                                                | N011225073 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.28                                     | 24                                          |
| 15.07.2025                                                | N016925073 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 22                                          |
| 25.07.2025                                                | N027625074 | 0.11                         | <0.1                           | <0.5                            | <0.5                                     | 0.22                                     | 20                                          |
| 26.07.2025                                                | N002525075 | 0.13                         | <0.1                           | <0.5                            | <0.5                                     | 0.29                                     | 25                                          |
| 28.07.2025                                                | N008225075 | 0.17                         | <0.1                           | <0.5                            | <0.5                                     | 0.25                                     | 24                                          |
| 29.07.2025                                                | N014125075 | 0.14                         | <0.1                           | <0.5                            | <0.5                                     | 0.29                                     | 26                                          |
| Limits for Industrial, Residential, Rural and other Areas |            | 1.0<br>24 Hrs                | 20<br>Annual                   | 6<br>Annual                     | 1<br>Annual                              | 4<br>1 Hr                                | 180<br>1 Hr                                 |

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No. 6

### AMBIENT AIR QUALITY

| <b>Name of the Client</b> : M/s. Minerals and Metals<br><b>Name of the Project</b> : Redi Iron Ore Mine<br><b>Sample Collected by</b> : Environmental Laboratory<br>(Unit of Mineral Engineering Services LLP)<br><b>Particulars of sample collected</b> : A6 - Near NIMCO Gate - Tivrewadi, Redi village<br><b>Duration</b> : 24 Hrs<br><b>Issue Date</b> : 05.08.2025<br><b>Reference</b> IS 5182 & Lab SOP |            |                                                       |                                                        |                                         |                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------|
| Date of Sampling                                                                                                                                                                                                                                                                                                                                                                                              | Report No  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) |
| 11.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N030825072 | 6                                                     | 9                                                      | 40                                      | 22                                       |
| 12.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N005125073 | 8                                                     | 9                                                      | 43                                      | 24                                       |
| 14.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N011525073 | 10                                                    | 11                                                     | 37                                      | 19                                       |
| 15.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N017225073 | 9                                                     | 11                                                     | 48                                      | 26                                       |
| 25.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N027925074 | 10                                                    | 12                                                     | 28                                      | 18                                       |
| 26.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N002825075 | 9                                                     | 12                                                     | 33                                      | 19                                       |
| 28.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N008525075 | 5                                                     | 9                                                      | 45                                      | 24                                       |
| 29.07.2025                                                                                                                                                                                                                                                                                                                                                                                                    | N014425075 | 9                                                     | 12                                                     | 35                                      | 21                                       |
| Limits for Industrial , Residential, Rural and other Areas                                                                                                                                                                                                                                                                                                                                                    |            | 80<br>24 Hrs                                          | 80<br>24 Hrs                                           | 100<br>24 Hrs                           | 60<br>24 Hrs                             |

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## TEST REPORT

Table No. 7

### AMBIENT AIR QUALITY

| <b>Name of the Client</b> : M/s. Minerals and Metals<br><b>Name of the Project</b> : Redi Iron Ore Mine<br><b>Sample Collected by</b> : Environmental Laboratory<br>(Unit of Mineral Engineering Services LLP)<br><b>Particulars of sample collected</b> : A7 - Near Primary School - sakalbhatwadi Redi village<br><b>Duration</b> : 24 Hrs<br><b>Issue Date</b> : 05.08.2025<br><b>Reference</b> IS 5182 & Lab SOP |            |                                                          |                                                           |                                            |                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|---------------------------------------------|
| Date of Sampling                                                                                                                                                                                                                                                                                                                                                                                                     | Report No  | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 11.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N030925072 | 10                                                       | 11                                                        | 48                                         | 23                                          |
| 12.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N005225073 | 4                                                        | 9                                                         | 25                                         | 15                                          |
| 14.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N011625073 | 10                                                       | 12                                                        | 37                                         | 17                                          |
| 15.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N017325073 | 9                                                        | 9                                                         | 30                                         | 16                                          |
| 25.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N028025074 | 10                                                       | 13                                                        | 28                                         | 14                                          |
| 26.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N002925075 | 8                                                        | 11                                                        | 35                                         | 24                                          |
| 28.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N008625075 | 5                                                        | 9                                                         | 39                                         | 19                                          |
| 29.07.2025                                                                                                                                                                                                                                                                                                                                                                                                           | N014525075 | 9                                                        | 11                                                        | 42                                         | 24                                          |
| Limits for Industrial ,<br>Residential, Rural and other Areas                                                                                                                                                                                                                                                                                                                                                        |            | 80<br>24 Hrs                                             | 80<br>24 Hrs                                              | 100<br>24 Hrs                              | 60<br>24 Hrs                                |

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## TEST REPORT

Table No. 8

### STATISTICAL AIR QUALITY DATA

Name of the Client : M/s. Minerals and Metals

Name of the Project : Redi Iron Ore Mine

Month : July, 2025

|            | A1 - Core zone Within ML Area |                 |                  |                   | A2 - Redi village (Within 200m from the ML Area) |                 |                  |                   | A3 - Gaontala village |                 |                  |                   |
|------------|-------------------------------|-----------------|------------------|-------------------|--------------------------------------------------|-----------------|------------------|-------------------|-----------------------|-----------------|------------------|-------------------|
|            | SO <sub>2</sub>               | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                                  | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>       | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Min.       | 4                             | 9               | 32               | 16                | 5                                                | 10              | 32               | 17                | 6                     | 9               | 27               | 16                |
| 10%        | 5                             | 9               | 33               | 17                | 5                                                | 10              | 33               | 17                | 6                     | 9               | 28               | 16                |
| 25%        | 5                             | 9               | 35               | 19                | 6                                                | 10              | 36               | 19                | 6                     | 9               | 32               | 16                |
| 50%        | 6                             | 10              | 41               | 22                | 8                                                | 12              | 39               | 21                | 8                     | 9               | 38               | 18                |
| 75%        | 8                             | 10              | 46               | 24                | 8                                                | 13              | 44               | 23                | 9                     | 11              | 39               | 19                |
| 98%        | 10                            | 12              | 49               | 25                | 9                                                | 14              | 51               | 27                | 10                    | 12              | 50               | 24                |
| Max.       | 10                            | 12              | 49               | 25                | 9                                                | 14              | 52               | 27                | 10                    | 12              | 52               | 25                |
| Avg.       | 7                             | 10              | 41               | 21                | 7                                                | 12              | 40               | 21                | 8                     | 10              | 37               | 18                |
| SD         | 2                             | 1               | 7                | 3                 | 2                                                | 2               | 7                | 3                 | 2                     | 1               | 8                | 3                 |
| No. of obs | 8                             |                 |                  |                   | 8                                                |                 |                  |                   | 8                     |                 |                  |                   |
|            | A4 - Kanyalwadi village       |                 |                  |                   | A5 - Shiroda village                             |                 |                  |                   |                       |                 |                  |                   |
|            | SO <sub>2</sub>               | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                                  | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |                       |                 |                  |                   |
| Min.       | 5                             | 9               | 23               | 15                | 5                                                | 8               | 27               | 15                |                       |                 |                  |                   |
| 10%        | 6                             | 9               | 24               | 16                | 5                                                | 9               | 29               | 16                |                       |                 |                  |                   |
| 25%        | 7                             | 9               | 29               | 16                | 6                                                | 9               | 34               | 17                |                       |                 |                  |                   |
| 50%        | 8                             | 11              | 34               | 18                | 7                                                | 9               | 38               | 19                |                       |                 |                  |                   |
| 75%        | 9                             | 12              | 39               | 19                | 8                                                | 10              | 39               | 20                |                       |                 |                  |                   |
| 98%        | 11                            | 12              | 44               | 23                | 9                                                | 11              | 46               | 22                |                       |                 |                  |                   |
| Max.       | 11                            | 12              | 44               | 23                | 9                                                | 11              | 47               | 22                |                       |                 |                  |                   |
| Avg.       | 8                             | 11              | 34               | 18                | 7                                                | 9               | 37               | 19                |                       |                 |                  |                   |
| SD         | 2                             | 1               | 7                | 3                 | 1                                                | 1               | 6                | 2                 |                       |                 |                  |                   |
| No. of obs | 8                             |                 |                  |                   | 8                                                |                 |                  |                   |                       |                 |                  |                   |

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## TEST REPORT

Table No. 9

### NOISE LEVEL DATA

Report No ; ELMES0512507

Report No ; ELMES051250

|                                                                   |                                                                          |                 |                 |
|-------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------|-----------------|
| Name of the Client                                                | : M/s. Minerals and Metals                                               |                 |                 |
| Name of the Project                                               | : Redi Iron Ore Mine                                                     |                 |                 |
| Particulars of sample collected                                   | : Sound Levels                                                           |                 |                 |
| Sample Collected by                                               | : Environmental Laboratory<br>(Unit of Mineral Engineering Services LLP) |                 |                 |
| Date of sample collection                                         | : 11.07.2025                                                             |                 |                 |
| Issue Date                                                        | : 05.08.2025                                                             |                 |                 |
| Sampling & Test Method                                            | : IS:9989                                                                |                 |                 |
| Code No.                                                          | Monitoring stations                                                      | Day             | Night           |
|                                                                   |                                                                          | L <sub>eq</sub> | L <sub>eq</sub> |
| Bufferzone                                                        |                                                                          |                 |                 |
| N1                                                                | Redi village                                                             | 46.9            | 39.1            |
| N2                                                                | Bombdojiwajici wadi                                                      | 44.2            | 37.0            |
| N3                                                                | Gaontala village                                                         | 46.1            | 36.4            |
| N4                                                                | Kanyalwadi village                                                       | 45.3            | 36.9            |
| N5                                                                | Shiroda village                                                          | 46.1            | 37.6            |
| N6                                                                | Tiroda village                                                           | 43.6            | 35.8            |
| Permissible Limits of Ambient Noise Levels as per CPCB Guidelines |                                                                          |                 |                 |
| Leq. Limit dB(A)                                                  |                                                                          |                 |                 |
|                                                                   |                                                                          | Day             | Night           |
| Residential area                                                  |                                                                          | 55              | 45              |
| Code No.                                                          | Monitoring stations                                                      | Day             | Night           |
|                                                                   |                                                                          | L <sub>eq</sub> | L <sub>eq</sub> |
| Bufferzone                                                        |                                                                          |                 |                 |
| N7                                                                | Near NIMCO Gate - Tivrewadi, Redi village                                | 48.0            | 38.2            |
| N8                                                                | Near Primary School - sakalbhatwadi, Redi village                        | 50.4            | 37.9            |
| Permissible Limits of Ambient Noise Levels as per CPCB Guidelines |                                                                          |                 |                 |
| Leq. Limit dB(A)                                                  |                                                                          |                 |                 |
|                                                                   |                                                                          | Day             | Night           |
| Commerecial area                                                  |                                                                          | 65              | 55              |
| Code No.                                                          | Monitoring stations                                                      | Day             | Night           |
|                                                                   |                                                                          | L <sub>eq</sub> | L <sub>eq</sub> |
| Corezone                                                          |                                                                          |                 |                 |
| N9                                                                | Near Mine office                                                         | 50.0            | 43.8            |
| Permissible Limits of Ambient Noise Levels as per CPCB Guidelines |                                                                          |                 |                 |
| Leq. Limit dB(A)                                                  |                                                                          |                 |                 |
|                                                                   |                                                                          | Day             | Night           |
| Industrial areas                                                  |                                                                          | 75              | 70              |

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## TEST REPORT

Table No. 10

|                                 |                                                                       |
|---------------------------------|-----------------------------------------------------------------------|
| Name of the Client              | : M/s. Minerals and Metals                                            |
| Name of the Project             | : Redi Iron Ore Mine                                                  |
| Location                        | : Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra         |
| Particulars of sample collected | : W1 - Pit water                                                      |
| Sample Collected by             | : Environmental Laboratory (Unit of Mineral Engineering Services LLP) |
| Date of sample collection       | : 12.07.2025                                                          |
| Date of sample receipt          | : 14.07.2025                                                          |
| Report No                       | : M011725072                                                          |
| Issue Date                      | : 05.08.2025                                                          |
| Ref                             | : Environmental (P) Rules, 1986 SCHEDULE VI                           |

| Sl. No. | Sample Code                                                        | W1                      | General Standards For Effluent Discharge of Environmental Pollutants | Method of Testing              |
|---------|--------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------|--------------------------------|
|         | Parameters                                                         | Results                 |                                                                      |                                |
| 1       | Colour (Hazen Units), & Odour                                      | <1                      | --                                                                   | IS:3025 (part-4)               |
| 2       | Suspended Solids (mg/l), Max                                       | 8                       | 100                                                                  | IS 3025 (P-17) 2022            |
| 3       | Particle size of suspended solids                                  | Pass through 850 micron | Shall Pass through 850 micron                                        | APHA 23rd edition              |
| 4       | pH                                                                 | 6.10                    | 5.5 to 9.0                                                           | IS 3025 (P-11) 2022            |
| 5       | Temperature °C                                                     | 25                      | Shall not exceed 5°C above the receiving water temp                  | IS 3025 (Part 9) 2023          |
| 6       | Oil & Grease (mg/l), Max                                           | <4.0                    | 10                                                                   | IS 3025 (P-39) 2021            |
| 7       | Total Residual Chlorine (mg/l), Max                                | <0.1                    | 1.0                                                                  | IS 3025 (P-26) 2021            |
| 8       | Ammonical Nitrogen (mg/l), Max                                     | <0.1                    | 50                                                                   | IS 3025 (P-34 Sec 1) 2023      |
| 9       | Total Kjeldahl Nitrogen (mg/l), Max                                | <0.1                    | 100                                                                  | IS 3025 (P-34 Sec 1) 2023      |
| 10      | Free Ammonia as NH <sub>3</sub> (mg/l), Max                        | <0.01                   | 5.0                                                                  | IS 3025 (P-34 Sec 1) 2023      |
| 11      | BOD [3 days at 27°C] (mg/l), Max                                   | <3.0                    | 30                                                                   | IS 3025 (Part 44) 2023         |
| 12      | COD (mg/l), Max                                                    | 18                      | 250                                                                  | IS 3025 (Part 58) 2023         |
| 13      | Arsenic as As (mg/l), Max                                          | <0.05                   | 0.2                                                                  | APHA 24th Ed. Method No. 3030K |
| 14      | Mercury as Hg (mg/l), Max                                          | <0.001                  | 0.01                                                                 | APHA 24th Ed. Method No. 3030K |
| 15      | Lead as Pb (mg/l), Max                                             | <0.05                   | 0.1                                                                  | APHA 24th Ed. Method No. 3030K |
| 16      | Cadmium as Cd (mg/l), Max                                          | <0.01                   | 2.0                                                                  | APHA 24th Ed. Method No. 3030K |
| 17      | Hexavalent Chromium as Cr <sup>+6</sup> (mg/l), Max                | <0.03                   | 0.1                                                                  | IS 3025 (P-52) 2014            |
| 18      | Total Chromium as Cr (mg/l), Max                                   | <0.01                   | 2.0                                                                  | APHA 24th Ed. Method No. 3030K |
| 19      | Copper as Cu (mg/l), Max                                           | <0.05                   | 3.0                                                                  | APHA 24th Ed. Method No. 3030K |
| 20      | Zinc as Zn (mg/l), Max                                             | <0.05                   | 5.0                                                                  | APHA 24th Ed. Method No. 3030K |
| 21      | Selenium as Se (mg/l), Max                                         | <0.05                   | 0.05                                                                 | APHA 24th Ed. Method No. 3030K |
| 22      | Nickel as Ni (mg/l), Max                                           | <0.05                   | 3.0                                                                  | APHA 24th Ed. Method No. 3030K |
| 23      | Cyanide as CN (mg/l), Max                                          | <0.01                   | 0.2                                                                  | IS 3025 (P-27) Sec 1 2021      |
| 24      | Fluoride as F (mg/l), Max                                          | 0.1                     | 2.0                                                                  | APHA 24th Edition 4500F        |
| 25      | Dissolved Phosphates as PO <sub>4</sub> (mg/l), Max                | <0.1                    | 5.0                                                                  | IS 3025 (P-31) Sec 1 2022      |
| 26      | Sulphide as S (mg/l), Max                                          | <0.01                   | 2.0                                                                  | IS 3025 (P-29) 2022            |
| 27      | Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH (mg/l), Max | <0.001                  | 1.0                                                                  | IS 3025 (P-43) Sec 1 2022      |
| 28      | Manganese as Mn (mg/l), Max                                        | <0.01                   | 2                                                                    | APHA 24th Ed. Method No. 3030K |
| 29      | Iron as Fe (mg/l), Max                                             | <0.05                   | 3                                                                    | APHA 24th Ed. Method No. 3030K |
| 30      | Vanadium as V (mg/l), Max                                          | <0.01                   | 0.2                                                                  | APHA 24th Ed. Method No. 3030K |
| 31      | Nitrate Nitrogen (mg/l), Max                                       | <0.1                    | 10                                                                   | IS 3025 (P-34) 1988 RA 2019    |

\*\*\*END OF REPORT\*\*\*

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## TEST REPORT

Table No. 11

|                                 |                                                                    |                                                                       |                                  |                                                                                  |
|---------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------|
| Name of the Client              |                                                                    | : M/s. Minerals and Metals                                            |                                  |                                                                                  |
| Name of the Project             |                                                                    | : Redi Iron Ore Mine                                                  |                                  |                                                                                  |
| Location                        |                                                                    | : Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra         |                                  |                                                                                  |
| Particulars of sample collected |                                                                    | : W2 - Pit Discharge Water, W3 - Runoff water from dump               |                                  |                                                                                  |
| Sample Collected by             |                                                                    | : Environmental Laboratory (Unit of Mineral Engineering Services LLP) |                                  |                                                                                  |
| Date of sample collection       |                                                                    | : 12.07.2025                                                          |                                  |                                                                                  |
| Date of sample receipt          |                                                                    | : 14.07.2025                                                          |                                  |                                                                                  |
| Issue Date                      |                                                                    | : 05.08.2025                                                          |                                  |                                                                                  |
| Ref                             |                                                                    | : Environmental (P) Rules, 1986 SCHEDULE VI                           |                                  |                                                                                  |
| Report No                       |                                                                    | -                                                                     | M011825072                       | General Standards<br>For Effluent<br>Discharge of<br>Environmental<br>Pollutants |
| Sl. No.                         | Sample code                                                        | W2                                                                    | W3                               | Method of Testing                                                                |
|                                 | Parameters                                                         | Results                                                               |                                  |                                                                                  |
| 1                               | Colour (Hazen Units), & Odour                                      | 20                                                                    |                                  | IS:3025 (part-4)                                                                 |
| 2                               | Suspended Solids (mg/l), Max                                       | 80                                                                    |                                  | IS 3025 (P-17) 2022                                                              |
| 3                               | Particle size of suspended solids                                  | Pass through<br>850 micron                                            | Shall Pass through<br>850 micron | APHA 23rd edition                                                                |
| 4                               | pH                                                                 | 6.28                                                                  |                                  | IS 3025 (P-11) 2022                                                              |
| 5                               | Temperature °C                                                     | 25                                                                    |                                  | Shall not exceed 5°C above the receiving water temp<br>IS 3025 (Part 9) 2023     |
| 6                               | Oil & Grease (mg/l), Max                                           | <4.0                                                                  |                                  | IS 3025 (P-39) 2021                                                              |
| 7                               | Total Residual Chlorine (mg/l), Max                                | <0.1                                                                  |                                  | IS 3025 (P-26) 2021                                                              |
| 8                               | Ammonical Nitrogen (mg/l), Max                                     | <0.1                                                                  |                                  | IS 3025 (P-34 Sec 1 ) 2023                                                       |
| 9                               | Total Kjeldahl Nitrogen (mg/l), Max                                | <0.1                                                                  |                                  | IS 3025 (P-34 Sec 1 ) 2023                                                       |
| 10                              | Free Ammonia as NH <sub>3</sub> (mg/l), Max                        | <0.01                                                                 |                                  | IS 3025 (P-34 Sec 1 ) 2023                                                       |
| 11                              | BOD [3 days at 27°C] (mg/l), Max                                   | <3.0                                                                  |                                  | IS 3025 (Part 44) 2023                                                           |
| 12                              | COD (mg/l), Max                                                    | 60                                                                    |                                  | IS 3025 (Part 58) 2023                                                           |
| 13                              | Arsenic as As (mg/l), Max                                          | <0.05                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 14                              | Mercury as Hg (mg/l), Max                                          | <0.001                                                                |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 15                              | Lead as Pb (mg/l), Max                                             | <0.05                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 16                              | Cadmium as Cd (mg/l), Max                                          | <0.01                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 17                              | Hexavalent Chromium as Cr <sup>+6</sup> (mg/l), Max                | <0.03                                                                 |                                  | IS 3025 (P-52) 2014                                                              |
| 18                              | Total Chromium as Cr (mg/l), Max                                   | <0.01                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 19                              | Copper as Cu (mg/l), Max                                           | <0.05                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 20                              | Zinc as Zn (mg/l), Max                                             | <0.05                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 21                              | Selenium as Se (mg/l), Max                                         | <0.05                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 22                              | Nickel as Ni (mg/l), Max                                           | <0.05                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 23                              | Cyanide as CN (mg/l), Max                                          | <0.01                                                                 |                                  | IS 3025 (P-27) Sec 1 2021                                                        |
| 24                              | Fluoride as F (mg/l), Max                                          | <0.1                                                                  |                                  | APHA 24th Edition 4500F                                                          |
| 25                              | Dissolved Phosphates as PO <sub>4</sub> (mg/l), Max                | <0.1                                                                  |                                  | IS 3025 (P-31) Sec 1 2022                                                        |
| 26                              | Sulphide as S (mg/l), Max                                          | <0.01                                                                 |                                  | IS 3025 (P-29) 2022                                                              |
| 27                              | Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH (mg/l), Max | <0.001                                                                |                                  | IS 3025 (P-43) Sec 1 2022                                                        |
| 28                              | Manganese as Mn (mg/l), Max                                        | <0.01                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 29                              | Iron as Fe (mg/l), Max                                             | <0.05                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 30                              | Vanadium as V (mg/l), Max                                          | <0.01                                                                 |                                  | APHA 24th Ed.Method No.3030K                                                     |
| 31                              | Nitrate Nitrogen (mg/l), Max                                       | <0.1                                                                  |                                  | IS 3025 (P-34) 1988 RA 2018                                                      |

\*\*\*END OF REPORT\*\*\*

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory

Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 12

|                                         |                                                                                                              |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Name of the Client                      | : M/s. Minerals and Metals                                                                                   |
| Name of the Project                     | : Redi Iron Ore Mine                                                                                         |
| Location                                | : Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra State.                                         |
| Particulars of sample collected         | : SW1 - Kanyal tank water, SW2 - Nallah water Near Kanyalwadi<br>SW3- Near Hanuman temple Kanyalwadi village |
| Sample Collected by                     | : Environmental Laboratory (Unit of Mineral Engineering Services LLP)                                        |
| Date of sample collection               | : 12.07.2025                                                                                                 |
| Date of sample receipt                  | : 14.07.2025                                                                                                 |
| Issue Date                              | : 05.08.2025                                                                                                 |
| Ref : IS : 2296 Water Quality Standards |                                                                                                              |

| Sl. No. | Report No                                                     | M012125072 | M012225072 | M012325072 | Limits     | Method of Testing               |
|---------|---------------------------------------------------------------|------------|------------|------------|------------|---------------------------------|
|         | Sample Code                                                   | SW1        | SW2        | SW3        |            |                                 |
|         | Parameters                                                    | Results    |            |            |            |                                 |
| 1       | Colour (Hazen Units)                                          | 1          | 1          | <1         | 300        | IS 3025 (Part 4) 2021           |
| 2       | pH                                                            | 6.55       | 6.54       | 6.80       | 6.5 to 8.5 | IS 3025 (Part 11) 2022          |
| 3       | Dissolved Oxygen (as O <sub>2</sub> ), mg/l                   | 5.70       | 5.60       | 5.80       | Min 4      | IS 3025 (Part 38):1989 RA 2015  |
| 4       | Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l          | <3         | <3         | <3         | Max 3      | IS 3025 (Part 44) 2023          |
| 5       | Total Coliform (MPN/100ml)                                    | 76         | 63         | 94         | 5000       | IS 15185 2016 RA 2021           |
| 6       | Total Dissolved Solids, (mg/l)                                | 162        | 216        | 114        | 1500       | IS 3025 (Part 18) 2023          |
| 7       | Chloride (as Cl),mg/l                                         | 80.0       | 90.0       | 35.0       | 600        | IS 3025 (Part 32) :1988 RA 2015 |
| 8       | Sulphates as SO <sub>4</sub> (mg/l)                           | 16.0       | 20.0       | 14.0       | 400        | APHA (24th Edition ):4110B      |
| 9       | Nitrates (as NO <sub>3</sub> ),mg/l                           | 1.60       | 3.60       | 1.20       | 50         | IS 3025 (Part 34-Sec1) 2023     |
| 10      | Fluoride (as F),mg/l                                          | 0.14       | 0.16       | 0.12       | 1.5        | IS 3025 (Part 60-Sec1) 2023     |
| 11      | Copper (as Cu),mg/l                                           | <0.0005    | <0.0005    | <0.0005    | 1.5        | IS 3025 (Part 65) 2022          |
| 12      | Iron (as Fe),mg/l                                             | <0.005     | <0.005     | <0.005     | 50         | IS 3025 (Part 65) 2022          |
| 13      | Zinc (as Zn),mg/l                                             | <0.005     | <0.005     | <0.005     | 15         | IS 3025 (Part 65) 2022          |
| 14      | Total Arsenic (as As), (mg/l)                                 | <0.0005    | <0.0005    | <0.0005    | 0.2        | IS 3025 (Part 65) 2022          |
| 15      | Lead (as Pb), mg/l                                            | <0.0005    | <0.0005    | <0.0005    | 0.1        | IS 3025 (Part 65) 2022          |
| 16      | Cadmium (as Cd), mg/l,                                        | <0.0005    | <0.0005    | <0.0005    | 0.01       | IS 3025 (Part 65) 2022          |
| 17      | Hexavalent Chromium (as Cr <sup>VI</sup> ), mg/l              | <0.03      | <0.03      | <0.03      | 0.05       | IS 3025 (Part 52):2019 RA 2021  |
| 18      | Selenium (as Se), mg/l                                        | <0.0005    | <0.0005    | <0.0005    | 0.05       | IS 3025 (Part 65) 2022          |
| 19      | Cyanide (as CN), mg/l,                                        | <0.01      | <0.01      | <0.01      | 0.05       | IS 3025 (Part 27/Sec1) 2021     |
| 20      | Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),mg/l | <0.001     | <0.001     | <0.001     | 0.005      | IS 3025 (Part 43/Sec1) 2022     |
| 21      | Anionic detergents (as MBAS),mg/l                             | <0.1       | <0.1       | <0.1       | 1.0        | IS 3025 (Part 68) 2023          |

Note : Class-C: Drinking water with conventional treatment followed by disinfection.

"END OF REPORT"

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Note : This report is subject to the terms and conditions mentioned overleaf.





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## TEST REPORT

Table No. 13

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Location : Redi village, Vengurla taluka, Sindhudurg dist, MH  
Particulars of sample collected : GW1 - Tiroda village open well, GW2 - Redi village open well  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Date of sample collection : 12.07.2025  
Date of sample receipt : 14.07.2025  
Issue Date : 05.08.2025

Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)

| Sl. No. | Parameters                                            | Results      |              | Desirable Limits                            | Permissible Limits | Method of Testing                    |
|---------|-------------------------------------------------------|--------------|--------------|---------------------------------------------|--------------------|--------------------------------------|
|         |                                                       | GW1          | GW2          |                                             |                    |                                      |
| 1       | Colour (Hazen Units)                                  | 1            | <1           | 5                                           | 15                 | IS 3025 (Part 4) 2021                |
| 2       | Odour                                                 | Agreeable    | Agreeable    | Agreeable                                   | Agreeable          | IS 3025 (Part 5) 2018                |
| 3       | pH Value                                              | 6.58         | 6.85         | 6.5 to 8.5                                  | 6.5 - 8.5          | IS 3025 (Part 11) 2022               |
| 4       | Taste                                                 | Agreeable    | Agreeable    | Agreeable                                   | Agreeable          | IS 3025 (Part 8) 2023                |
| 5       | Turbidity, NTU                                        | 0.8          | 0.5          | 1                                           | 5                  | IS 3025 (Part 10) 2023               |
| 6       | Total Dissolved Solids, mg/l                          | 28.0         | 286.0        | 500                                         | 2000               | IS 3025 (Part 16) 2023               |
| 7       | Aluminium (as Al)                                     | <0.005       | <0.005       | 0.03                                        | 0.2                | IS 3025 (Part 65) 2022               |
| 8       | Ammonia (as total Ammonia -N), mg/l                   | <0.1         | <0.1         | 0.5                                         | 0.5                | IS 3025 (Part 34) Sec 1 2023         |
| 9       | Anionic Detergents (as MBAS), mg/l                    | <0.1         | <0.1         | 0.2                                         | 1.0                | IS 3025 (Part 68) 2023               |
| 10      | Barium (as Ba), mg/l                                  | <0.005       | <0.005       | 0.7                                         | 0.7                | IS 3025 (Part 65) 2022               |
| 11      | Boron (as B), mg/l                                    | <0.1         | <0.1         | 0.5                                         | 2.4                | IS 3025 (Part 57) 2021               |
| 12      | Calcium (as Ca), mg/l                                 | 2.40         | 20.00        | 75                                          | 200                | IS 3025 (Part 40) 2021               |
| 13      | Chloramines as Cl <sub>2</sub>                        | <0.1         | <0.1         | 4                                           | 4                  | Clause 6.1 of IS 3025 (Part 26) 2021 |
| 14      | Chloride as Cl (mg/l)                                 | 12.00        | 100.00       | 250                                         | 1000               | IS 3025 (Part 32):1988 RA 1919       |
| 16      | Copper (as Cu), mg/l                                  | <0.0005      | <0.0005      | 0.05                                        | 1.5                | IS 3025 (Part 65) 2022               |
| 17      | Fluoride (as F), mg/l                                 | <0.1         | <0.1         | 1                                           | 1.5                | IS 3025 (Part 60) Sec1 2022          |
| 19      | Residual, Free Chlorine, mg/l                         | <0.1         | <0.1         | 0.2                                         | 1                  | IS 3025 (Part 26) 2021               |
| 20      | Iron (as Fe), mg/l                                    | <0.005       | <0.005       | 1.0                                         | 1.0                | IS 3025 (Part 65) 2022               |
| 21      | Magnesium (as Mg), mg/l                               | 1.94         | 13.30        | 30                                          | 100                | IS 3025 (Part 46) 2023               |
| 22      | Manganese (as Mn), mg/l                               | <0.001       | <0.001       | 0.1                                         | 0.3                | IS 3025 (Part 65) 2022               |
| 23      | Mineral Oil, mg/l                                     | <0.5         | <0.5         | 1.0                                         | 1.0                | IS 3025 (Part 39) 2021               |
| 24      | Nitrates (as NO <sub>3</sub> ), mg/l                  | <0.1         | 6.00         | 45                                          | 45                 | IS 3025 (Part 34) Sec 1 2023         |
| 25      | Phenolics (as C <sub>6</sub> H <sub>5</sub> OH), mg/l | <0.001       | <0.001       | 0.001                                       | 0.002              | IS 3025 (Part 43/Sec1) 2022          |
| 26      | Selenium (as Se), mg/l                                | <0.0005      | <0.0005      | 0.01                                        | 0.01               | IS 3025 (Part 65) 2022               |
| 27      | Silver (as Ag), mg/l                                  | <0.005       | <0.005       | 0.1                                         | 0.1                | IS 3025 (Part 65) 2022               |
| 28      | Sulphate (as SO <sub>4</sub> ), mg/l                  | 1.50         | 35.00        | 200                                         | 400                | IS 3025 (Part 24/Sec1) 2022          |
| 29      | Sulphide (as H <sub>2</sub> S), mg/l                  | <0.01        | <0.01        | 0.05                                        | 0.05               | IS 3025 (Part 29) 2022               |
| 30      | Total Alkalinity (as CaCO <sub>3</sub> ), mg/l        | 6.0          | 75.0         | 200                                         | 600                | IS 3025 Part(23) 2023                |
| 31      | Total Hardness (as CaCO <sub>3</sub> ), mg/l          | 14.0         | 105.0        | 200                                         | 600                | IS 3025 (Part 21) :2009 RA 2023      |
| 32      | Zinc (as Zn), mg/l                                    | <0.005       | <0.005       | 5                                           | 15                 | IS 3025 (Part 65) 2022               |
| 33      | Cadmium (as Cd), mg/l                                 | <0.0005      | <0.0005      | 0.003                                       | 0.003              | IS 3025 (Part 65) 2022               |
| 34      | Cyanide (as CN), mg/l                                 | <0.01        | <0.01        | 0.05                                        | 0.05               | IS 3025 (Part 27/Sec1) 2021          |
| 35      | Lead (as Pb), mg/l                                    | <0.0005      | <0.0005      | 0.01                                        | 0.01               | IS 3025 (Part 65) 2022               |
| 36      | Mercury (as Hg), mg/l                                 | <0.0005      | <0.0005      | 0.001                                       | 0.001              | IS 3025 (Part 65) 2022               |
| 37      | Molybdenum (as Mo), mg/l                              | <0.0005      | <0.0005      | 0.07                                        | 0.07               | IS 3025 (Part 65) 2022               |
| 38      | Nickel (as Ni), mg/l                                  | <0.01        | <0.01        | 0.02                                        | 0.02               | IS 3025 (Part 65) 2022               |
| 39      | Arsenic (as As), mg/l                                 | <0.0005      | <0.0005      | 0.01                                        | 0.01               | IS 3025 (Part 65) 2022               |
| 40      | Total Chromium (as Cr), mg/l                          | <0.001       | <0.001       | 0.05                                        | 0.05               | IS 3025 (Part 65) 2022               |
| 41      | Escherichia coli/100ml                                | Not Detected | Not Detected | Shall not be detectable in any 100ml Sample |                    | IS 15185 2016 RA 2021                |
| 42      | Total Coliform /100ml                                 | Not Detected | Not Detected |                                             |                    | IS 15185 2016 RA 2021                |
| 43      | Electrical Conductivity (µmhos/cm)                    | 50.0         | 520.0        | --                                          | --                 | IS 3025 (Part 14) : 2013 RA 2023     |
| 42      | Water levels in well from surface (m)                 | 4.75         | 2.78         | --                                          | --                 | --                                   |

"END OF REPORT"

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## TEST REPORT

Table No. 14

|                                                                    |                                                      |                                                                       |              |                                                |                      |                                      |
|--------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------|--------------|------------------------------------------------|----------------------|--------------------------------------|
| Name of the Client                                                 |                                                      | : M/s. Minerals and Metals                                            |              |                                                |                      |                                      |
| Name of the Project                                                |                                                      | : Redi Iron Ore Mine                                                  |              |                                                |                      |                                      |
| Location                                                           |                                                      | : Redi village , Vengurla taluka, Sindhudurg dist, MH                 |              |                                                |                      |                                      |
| Particulars of sample collected                                    |                                                      | : GW3 -Shiroda village open well, GW4 - Kanyalwadi village open well, |              |                                                |                      |                                      |
| Sample Collected by                                                |                                                      | : Environmental Laboratory (Unit of Mineral Engineering Services LLP) |              |                                                |                      |                                      |
| Date of sample collection                                          |                                                      | : 12.07.2025                                                          |              |                                                |                      |                                      |
| Date of sample receipt                                             |                                                      | : 14.07.2025                                                          |              |                                                |                      |                                      |
| Issue Date                                                         |                                                      | : 05.08.2025                                                          |              |                                                |                      |                                      |
| Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards) |                                                      |                                                                       |              |                                                |                      |                                      |
| Report No                                                          |                                                      | M012625072                                                            | M012725072   | Desirable<br>Limts                             | Permissible<br>Limts | Method of Testing                    |
| Sl.<br>No.                                                         | Parameters                                           | Results                                                               |              |                                                |                      |                                      |
|                                                                    |                                                      | GW3                                                                   | GW4          |                                                |                      |                                      |
| 1                                                                  | Colour (Hazen Units)                                 | <1                                                                    | <1           | 5                                              | 15                   | IS 3025 (Part 4) 2021                |
| 2                                                                  | Odour                                                | Agreeable                                                             | Agreeable    | Agreeable                                      | Agreeable            | IS 3025 (Part 5) 2018                |
| 3                                                                  | pH Value                                             | 6.70                                                                  | 6.59         | 6.5 to 8.5                                     | 6.5 - 8.5            | IS 3025 (Part 11) 2022               |
| 4                                                                  | Taste                                                | Agreeable                                                             | Agreeable    | Agreeable                                      | Agreeable            | IS 3025 (Part 8) 2023                |
| 5                                                                  | Turbidity,NTU                                        | 0.5                                                                   | <0.1         | 1                                              | 5                    | IS 3025 (Part 10) 2023               |
| 6                                                                  | Total Dissolved Solids,mg/l                          | 162.0                                                                 | 54.0         | 500                                            | 2000                 | IS 3025 (Part 16) 2023               |
| 7                                                                  | Aluminium (as Al)                                    | <0.005                                                                | <0.005       | 0.03                                           | 0.2                  | IS 3025 (Part 65) 2022               |
| 8                                                                  | Ammonia (as total Ammonia -N),mg/l                   | <0.1                                                                  | <0.1         | 0.5                                            | 0.5                  | IS 3025 (Part 34) Sec 1 2023         |
| 9                                                                  | Anionic Detergents (as MBAS),mg/l                    | <0.1                                                                  | <0.1         | 0.2                                            | 1.0                  | IS 3025 (Part 68) 2023               |
| 10                                                                 | Barium (as Ba), mg/l                                 | <0.005                                                                | <0.005       | 0.7                                            | 0.7                  | IS 3025 (Part 65) 2022               |
| 11                                                                 | Boron (as B), mg/l                                   | <0.1                                                                  | <0.1         | 0.5                                            | 2.4                  | IS 3025 (Part 57) 2021               |
| 12                                                                 | Calcium (as Ca),mg/l                                 | 12.80                                                                 | 4.00         | 75                                             | 200                  | IS 3025 (Part 40) 2021               |
| 13                                                                 | Chloramines as Cl2                                   | <0.1                                                                  | <0.1         | 4                                              | 4                    | Clause 6.1 of IS 3025 (Part 26) 2021 |
| 14                                                                 | Chloride as Cl (mg/l)                                | 34.00                                                                 | 24.00        | 250                                            | 1000                 | IS 3025 (Part32):1988 RA 2019        |
| 16                                                                 | Copper (as Cu),mg/l                                  | <0.0005                                                               | <0.0005      | 0.05                                           | 1.5                  | IS 3025 (Part 65) 2022               |
| 17                                                                 | Fluoride (as F),mg/l                                 | <0.1                                                                  | <0.1         | 1                                              | 1.5                  | IS 3025 (Part 60) Sec1 2022          |
| 19                                                                 | Residual, Free Chlorine,mg/l                         | <0.1                                                                  | <0.1         | 0.2                                            | 1                    | IS 3025 (Part 26) 2021               |
| 20                                                                 | Iron (as Fe),mg/l                                    | <0.005                                                                | <0.005       | 1.0                                            | 1.0                  | IS 3025 (Part 65) 2022               |
| 21                                                                 | Magnesium (as Mg),mg/l                               | 9.23                                                                  | 2.91         | 30                                             | 100                  | IS 3025 (Part 46) 2023               |
| 22                                                                 | Manganese (as Mn),mg/l                               | <0.001                                                                | <0.001       | 0.1                                            | 0.3                  | IS 3025 (Part 65) 2022               |
| 23                                                                 | Mineral Oil,mg/l                                     | <0.5                                                                  | <0.5         | 1.0                                            | 1.0                  | IS 3025 (Part 39) 2021               |
| 24                                                                 | Nitrates (as NO <sub>3</sub> ),mg/l                  | 2.80                                                                  | 1.70         | 45                                             | 45                   | IS 3025 (Part 34) Sec 1 2023         |
| 25                                                                 | Phenolics (as C <sub>6</sub> H <sub>5</sub> OH),mg/l | <0.001                                                                | <0.001       | 0.001                                          | 0.002                | IS 3025 (Part 43/Sec1) 2022          |
| 26                                                                 | Selenium (as Se),mg/l                                | <0.0005                                                               | <0.0005      | 0.01                                           | 0.01                 | IS 3025 (Part 65) 2022               |
| 27                                                                 | Silver (as Ag), mg/l                                 | <0.005                                                                | <0.005       | 0.1                                            | 0.1                  | IS 3025 (Part 65) 2022               |
| 28                                                                 | Sulphate (as SO <sub>4</sub> ),mg/l                  | 2.00                                                                  | 5.60         | 200                                            | 400                  | IS 3025 (Part 24/Sec1) 2022          |
| 29                                                                 | Sulphide (as H <sub>2</sub> S) , mg/l                | <0.01                                                                 | <0.01        | 0.05                                           | 0.05                 | IS 3025 (Part 29) 2022               |
| 30                                                                 | Total Alkalinity (as CaCO <sub>3</sub> ) mg/l        | 74.0                                                                  | 10.0         | 200                                            | 600                  | IS 3025 Part(23) 2023                |
| 31                                                                 | Total Hardness (as CaCO <sub>3</sub> ),mg/l          | 70.0                                                                  | 22.0         | 200                                            | 600                  | IS 3025 (Part 21) :2009 RA 2023      |
| 32                                                                 | Zinc (as Zn),mg/l                                    | <0.005                                                                | <0.005       | 5                                              | 15                   | IS 3025 (Part 65) 2022               |
| 33                                                                 | Cadmium (as Cd),mg/l                                 | <0.0005                                                               | <0.0005      | 0.003                                          | 0.003                | IS 3025 (Part 65) 2022               |
| 34                                                                 | Cyanide (as CN),mg/l                                 | <0.01                                                                 | <0.01        | 0.05                                           | 0.05                 | IS 3025 (Part 27/Sec1) 2021          |
| 35                                                                 | Lead (as Pb),mg/l                                    | <0.0005                                                               | <0.0005      | 0.01                                           | 0.01                 | IS 3025 (Part 65) 2022               |
| 36                                                                 | Mercury (as Hg),mg/l                                 | <0.0005                                                               | <0.0005      | 0.001                                          | 0.001                | IS 3025 (Part 65) 2022               |
| 37                                                                 | Molybdenum (as Mo), mg/l                             | <0.0005                                                               | <0.0005      | 0.07                                           | 0.07                 | IS 3025 (Part 65) 2022               |
| 38                                                                 | Nickel (as Ni),mg/l                                  | <0.01                                                                 | <0.01        | 0.02                                           | 0.02                 | IS 3025 (Part 65) 2022               |
| 39                                                                 | Arsenic (as As),mg/l                                 | <0.0005                                                               | <0.0005      | 0.01                                           | 0.01                 | IS 3025 (Part 65) 2022               |
| 40                                                                 | Total Chromium (as Cr),mg/l                          | <0.001                                                                | <0.001       | 0.05                                           | 0.05                 | IS 3025 (Part 65) 2022               |
| 41                                                                 | Escherichia coli/100ml                               | Not Detected                                                          | Not Detected | Shall not be detectable in any<br>100ml Sample |                      | IS 15185 2016 RA 2021                |
| 42                                                                 | Total Coliform /100ml)                               | Not Detected                                                          | Not Detected |                                                |                      | IS 15185 2016 RA 2021                |
| 43                                                                 | Electrical Conductivity (µmhos/cm)                   | 300.0                                                                 | 100.0        | --                                             | --                   | IS 3025 (Part 14) : 2013 RA 2023     |
| 42                                                                 | Water levels in well from surface (m)                | 0.30                                                                  | 0.20         | --                                             | --                   | --                                   |

"END OF REPORT"

BINU MANI

TM - Microbiology

Govt Analyst / Authonsed Signatory

ARSHIYA KOUSAR

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
Recognised by MoEFCC(CPCB) under E(P) Act 1986 Recognition valid upto 23.05.2028

## TEST REPORT

Table No. 15

Name of the Client : M/s. Minerals and Metals  
Name of the Project : Redi Iron Ore Mine  
Location : Redi village, Vengurla taluka, Sindhudurg dist, MH  
Particulars of sample collected : GW5 - Gaontala village open well, GW6 - Tap water (near mines office)  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Date of sample collection : 12.07.2025  
Date of sample receipt : 14.07.2025  
Issue Date : 05.08.2025

Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)

| Sl. No. | Parameters                                            | Report No    |              | Desirable Limits                            | Permissible Limits | Method of Testing                    |
|---------|-------------------------------------------------------|--------------|--------------|---------------------------------------------|--------------------|--------------------------------------|
|         |                                                       | M012825072   | M012925072   |                                             |                    |                                      |
|         |                                                       | Results      |              |                                             |                    |                                      |
|         |                                                       | GW5          | GW6          |                                             |                    |                                      |
| 1       | Colour (Hazen Units)                                  | <1           | <1           | 5                                           | 15                 | IS 3025 (Part 4) 2021                |
| 2       | Odour                                                 | Agreeable    | Agreeable    | Agreeable                                   | Agreeable          | IS 3025 (Part 5) 2018                |
| 3       | pH Value                                              | 6.55         | 7.17         | 6.5 to 8.5                                  | 6.5 - 8.5          | IS 3025 (Part 11) 2022               |
| 4       | Taste                                                 | Agreeable    | Agreeable    | Agreeable                                   | Agreeable          | IS 3025 (Part 8) 2023                |
| 5       | Turbidity, NTU                                        | <0.1         | 0.8          | 1                                           | 5                  | IS 3025 (Part 10) 2023               |
| 6       | Total Dissolved Solids, mg/l                          | 60.0         | 146.0        | 500                                         | 2000               | IS 3025 (Part 16) 2023               |
| 7       | Aluminium (as Al)                                     | <0.005       | <0.005       | 0.03                                        | 0.2                | IS 3025 (Part 65) 2022               |
| 8       | Ammonia (as total Ammonia -N), mg/l                   | <0.1         | <0.1         | 0.5                                         | 0.5                | IS 3025 (Part 34) Sec 1 2023         |
| 9       | Anionic Detergents (as MBAS), mg/l                    | <0.1         | <0.1         | 0.2                                         | 1.0                | IS 3025 (Part 68) 2023               |
| 10      | Barium (as Ba), mg/l                                  | <0.005       | <0.005       | 0.7                                         | 0.7                | IS 3025 (Part 65) 2022               |
| 11      | Boron (as B), mg/l                                    | <0.1         | <0.1         | 0.5                                         | 2.4                | IS 3025 (Part 57) 2021               |
| 12      | Calcium (as Ca), mg/l                                 | 3.20         | 9.60         | 75                                          | 200                | IS 3025 (Part 40) 2021               |
| 13      | Chloramines as Cl <sub>2</sub>                        | <0.1         | <0.1         | 4                                           | 4                  | Clause 6.1 of IS 3025 (Part 26) 2021 |
| 14      | Chloride as Cl (mg/l)                                 | 22.00        | 68.00        | 250                                         | 1000               | IS 3025 (Part 32):1988 RA 2019       |
| 16      | Copper (as Cu), mg/l                                  | <0.0005      | <0.0005      | 0.05                                        | 1.5                | IS 3025 (Part 65) 2022               |
| 17      | Fluoride (as F), mg/l                                 | <0.1         | <0.1         | 1                                           | 1.5                | IS 3025 (Part 60) Sec1 2022          |
| 19      | Residual, Free Chlorine, mg/l                         | <0.1         | <0.1         | 0.2                                         | 1                  | IS 3025 (Part 26) 2021               |
| 20      | Iron (as Fe), mg/l                                    | <0.005       | <0.005       | 1.0                                         | 1.0                | IS 3025 (Part 65) 2022               |
| 21      | Magnesium (as Mg), mg/l                               | 2.91         | 6.32         | 30                                          | 100                | IS 3025 (Part 48) 2023               |
| 22      | Manganese (as Mn), mg/l                               | <0.001       | <0.001       | 0.1                                         | 0.3                | IS 3025 (Part 65) 2022               |
| 23      | Mineral Oil, mg/l                                     | <0.5         | <0.5         | 1.0                                         | 1.0                | IS 3025 (Part 39) 2021               |
| 24      | Nitrates (as NO <sub>3</sub> ), mg/l                  | 2.50         | 4.60         | 45                                          | 45                 | IS 3025 (Part 34) Sec 1 2023         |
| 25      | Phenolics (as C <sub>6</sub> H <sub>5</sub> OH), mg/l | <0.001       | <0.001       | 0.001                                       | 0.002              | IS 3025 (Part 43/Sec1) 2022          |
| 26      | Selenium (as Se), mg/l                                | <0.0005      | <0.0005      | 0.01                                        | 0.01               | IS 3025 (Part 65) 2022               |
| 27      | Silver (as Ag), mg/l                                  | <0.005       | <0.005       | 0.1                                         | 0.1                | IS 3025 (Part 65) 2022               |
| 28      | Sulphate (as SO <sub>4</sub> ), mg/l                  | 10.00        | 14.00        | 200                                         | 400                | IS 3025 (Part 24/Sec1) 2022          |
| 29      | Sulphide (as H <sub>2</sub> S), mg/l                  | <0.01        | <0.01        | 0.05                                        | 0.05               | IS 3025 (Part 29) 2022               |
| 30      | Total Alkalinity (as CaCO <sub>3</sub> ), mg/l        | 4.0          | 20.0         | 200                                         | 600                | IS 3025 Part(23) 2023                |
| 31      | Total Hardness (as CaCO <sub>3</sub> ), mg/l          | 20.0         | 50.0         | 200                                         | 600                | IS 3025 (Part 21) :2009 RA 2023      |
| 32      | Zinc (as Zn), mg/l                                    | <0.005       | <0.005       | 5                                           | 15                 | IS 3025 (Part 65) 2022               |
| 33      | Cadmium (as Cd), mg/l                                 | <0.0005      | <0.0005      | 0.003                                       | 0.003              | IS 3025 (Part 65) 2022               |
| 34      | Cyanide (as CN), mg/l                                 | <0.01        | <0.01        | 0.05                                        | 0.05               | IS 3025 (Part 27/Sec1) 2021          |
| 35      | Lead (as Pb), mg/l                                    | <0.0005      | <0.0005      | 0.01                                        | 0.01               | IS 3025 (Part 65) 2022               |
| 36      | Mercury (as Hg), mg/l                                 | <0.0005      | <0.0005      | 0.001                                       | 0.001              | IS 3025 (Part 65) 2022               |
| 37      | Molybdenum (as Mo), mg/l                              | <0.0005      | <0.0005      | 0.07                                        | 0.07               | IS 3025 (Part 65) 2022               |
| 38      | Nickel (as Ni), mg/l                                  | <0.01        | <0.01        | 0.02                                        | 0.02               | IS 3025 (Part 65) 2022               |
| 39      | Arsenic (as As), mg/l                                 | <0.0005      | <0.0005      | 0.01                                        | 0.01               | IS 3025 (Part 65) 2022               |
| 40      | Total Chromium (as Cr), mg/l                          | <0.001       | <0.001       | 0.05                                        | 0.05               | IS 3025 (Part 65) 2022               |
| 41      | Escherichia coli/100ml                                | Not Detected | Not Detected | Shall not be detectable in any 100ml Sample |                    | IS 15185 2016 RA 2021                |
| 42      | Total Coliform /100ml                                 | Not Detected | Not Detected |                                             |                    | IS 15185 2016 RA 2021                |
| 43      | Electrical Conductivity (umhos/cm)                    | 110.0        | 50.0         | --                                          | --                 | IS 3025 (Part 14) : 2013 RA 2023     |
| 42      | Water levels in well from surface (m)                 | 11.10        | --           | --                                          | --                 | --                                   |

"END OF REPORT"

BINU MANI

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Govt Analyst / Authorised Signatory

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Note : This report is subject to the terms and conditions mentioned overleaf.





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## TEST REPORT

|                                 |                                                                    |                                 |           |                        |
|---------------------------------|--------------------------------------------------------------------|---------------------------------|-----------|------------------------|
| Name of the Client              |                                                                    | : M/s. Minerals and Metals      |           |                        |
| Name of the Project             |                                                                    | : Redi Iron Ore Mine            |           |                        |
| Particulars of sample collected |                                                                    | : STP1 - Sewage Treatment Plant |           |                        |
| Date of sample collection       |                                                                    | : 12.07.2025                    |           |                        |
| Date of sample receipt          |                                                                    | : 14.07.2025                    |           |                        |
| Report no                       |                                                                    | : M013025072                    |           |                        |
| Issue Date                      |                                                                    | : 05.08.2025                    |           |                        |
| Sample code                     |                                                                    | STP1                            | Standards | Method of Testing      |
| Sl. No.                         | Parameters                                                         | Results                         |           |                        |
| 1                               | pH                                                                 | 6.77                            | -         | IS 3025 (P-11) 2022    |
| 2                               | Biochemical Oxygen Demand BOD <sub>3</sub> 27 <sup>0</sup> C, mg/l | 25                              | <30       | IS 3025 (Part 44) 2023 |
| 3                               | Total Suspended Solids, at 105 <sup>0</sup> C, mg/l                | 30                              | <50       | IS 3025 (P-17) 2022    |
| 4                               | Chemical Oxygen Demand (COD) (mg/l)                                | 52                              | <100      | IS 3025 (Part 58) 2023 |

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