

ENVIRONMENTAL MONITORING REPORT

Project	REDI IRON ORE MINE
Location	Redi Village Vengurla Taluka, Sindudurg Dist Maharashtra
Client	MINERALS AND METALS
Office Address	P. O. Redi, Tal Vengurla, Sindhudurga 416517, Maharashtra (India)
Monitoring Month	August -2025

ENVIRONMENTAL LABORATORY

(Unit of Mineral Engineering Services LLP)

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

#948, 2nd 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)
Code & Station	: A1 - Core zone Within ML Area
Duration	: 24 Hrs
Issue Date	: 05.09.2025
Sampling & Test Method : IS 5182 & Lab SOP	

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
06.08.2025	N014025082	7	11	33	15	<20	<1
07.08.2025	N018125082	8	10	36	19	<20	<1
15.08.2025	N030525083	9	12	47	21	<20	<1
16.08.2025	N003425084	<4	9	36	20	<20	<1
22.08.2025	N022025084	6	<9	39	23	<20	<1
23.08.2025	N006425085	7	9	28	14	<20	<1
25.08.2025	N013525085	10	11	45	23	<20	<1
26.08.2025	N021325085	9	11	32	18	<20	<1
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
06.08.2025	N014025082	0.12	<0.1	<0.5	<0.5	0.21	21
07.08.2025	N018125082	0.15	<0.1	<0.5	<0.5	<0.2	21
15.08.2025	N030525083	<0.1	<0.1	<0.5	<0.5	0.22	24
16.08.2025	N003425084	0.11	<0.1	<0.5	<0.5	0.24	22
22.08.2025	N022025084	0.13	<0.1	<0.5	<0.5	0.22	25
23.08.2025	N006425085	<0.1	<0.1	<0.5	<0.5	0.26	23
25.08.2025	N013525085	0.18	<0.1	<0.5	<0.5	0.22	21
26.08.2025	N021325085	0.12	<0.1	<0.5	<0.5	0.20	20
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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



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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)
Code & Station	: A2 - Redi village (Within 200m from the ML Area)
Duration	: 24 Hrs
Issue Date	: 05.09.2025
Sampling & Test Method : IS 5182 & Lab SOP	

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
06.08.2025	N013425082	10	12	41	20	<20	<1
07.08.2025	N017525082	9	10	30	16	<20	<1
15.08.2025	N029925083	7	9	36	19	<20	<1
16.08.2025	N002825084	4	10	40	21	<20	<1
22.08.2025	N021425084	11	11	32	17	<20	<1
23.08.2025	N005825085	5	11	36	21	<20	<1
25.08.2025	N012925085	8	13	42	22	<20	<1
26.08.2025	N020725085	11	11	52	29	<20	<1
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
06.08.2025	N013425082	0.13	<0.1	<0.5	<0.5	0.25	23
07.08.2025	N017525082	0.10	<0.1	<0.5	<0.5	0.34	27
15.08.2025	N029925083	<0.1	<0.1	<0.5	<0.5	0.21	28
16.08.2025	N002825084	0.11	<0.1	<0.5	<0.5	0.20	22
22.08.2025	N021425084	0.15	<0.1	<0.5	<0.5	0.23	20
23.08.2025	N005825085	0.18	<0.1	<0.5	<0.5	0.22	25
25.08.2025	N012925085	0.13	<0.1	<0.5	<0.5	0.25	22
26.08.2025	N020725085	0.11	<0.1	<0.5	<0.5	0.31	20
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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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)
Code & Station : A3 - Gaontala village
Duration : 24 Hrs
Issue Date : 05.09.2025
Sampling & Test Method : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
06.08.2025	N013625082	8	10	42	24	<20	<1
07.08.2025	N017725082	9	13	39	28	<20	<1
15.08.2025	N030125083	5	9	37	26	<20	<1
16.08.2025	N003025084	7	10	33	27	<20	<1
22.08.2025	N021625084	9	13	48	26	<20	<1
23.08.2025	N006025085	10	11	42	23	<20	<1
25.08.2025	N013125085	11	12	34	22	<20	<1
26.08.2025	N020925085	12	12	36	21	<20	<1
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
06.08.2025	N013625082	0.15	<0.1	<0.5	<0.5	<0.2	21
07.08.2025	N017725082	0.19	<0.1	<0.5	<0.5	0.21	26
15.08.2025	N030125083	0.11	<0.1	<0.5	<0.5	0.22	27
16.08.2025	N003025084	0.14	<0.1	<0.5	<0.5	<0.2	28
22.08.2025	N021625084	0.12	<0.1	<0.5	<0.5	0.20	21
23.08.2025	N006025085	0.11	<0.1	<0.5	<0.5	0.22	22
25.08.2025	N013125085	0.10	<0.1	<0.5	<0.5	0.26	25
26.08.2025	N020925085	<0.1	<0.1	<0.5	<0.5	0.22	23
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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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)
Code & Station : A4 - Kanyalwadi village
Duration : 24 Hrs
Issue Date : 05.09.2025
Sampling & Test Method : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
06.08.2025	N013725082	9	9	43	22	<20	<1
07.08.2025	N017825082	8	13	38	21	<20	<1
15.08.2025	N030225083	6	12	35	20	<20	<1
16.08.2025	N003125084	7	11	31	17	<20	<1
22.08.2025	N021725084	5	10	38	15	<20	<1
23.08.2025	N006125085	4	9	44	22	<20	<1
25.08.2025	N013225085	9	13	45	20	<20	<1
26.08.2025	N021025085	8	11	33	19	<20	<1
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
06.08.2025	N013725082	0.12	<0.1	<0.5	<0.5	0.25	21
07.08.2025	N017825082	0.15	<0.1	<0.5	<0.5	0.21	29
15.08.2025	N030225083	0.19	<0.1	<0.5	<0.5	0.33	28
16.08.2025	N003125084	0.21	<0.1	<0.5	<0.5	0.25	28
22.08.2025	N021725084	0.10	<0.1	<0.5	<0.5	0.21	27
23.08.2025	N006125085	0.13	<0.1	<0.5	<0.5	0.28	25
25.08.2025	N013225085	0.14	<0.1	<0.5	<0.5	<0.2	21
26.08.2025	N021025085	0.11	<0.1	<0.5	<0.5	0.21	25
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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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)
Code & Station : A5 - Shiroda village
Duration : 24 Hrs
Issue Date : 05.09.2025
Sampling & Test Method : IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
06.08.2025	N013525082	7	10	48	24	<20	<1
07.08.2025	N017625082	10	12	35	19	<20	<1
15.08.2025	N030025083	12	9	37	18	<20	<1
16.08.2025	N002925084	4	9	25	15	<20	<1
22.08.2025	N021525084	6	10	40	25	<20	<1
23.08.2025	N005925085	5	13	37	17	<20	<1
25.08.2025	N013025085	7	11	48	28	<20	<1
26.08.2025	N020825085	8	12	45	25	<20	<1
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
06.08.2025	N013525082	0.17	<0.1	<0.5	<0.5	0.21	24
07.08.2025	N017625082	0.22	<0.1	<0.5	<0.5	0.20	20
15.08.2025	N030025083	0.15	<0.1	<0.5	<0.5	<0.2	21
16.08.2025	N002925084	0.19	<0.1	<0.5	<0.5	0.21	20
22.08.2025	N021525084	0.10	<0.1	<0.5	<0.5	0.22	22
23.08.2025	N005925085	0.11	<0.1	<0.5	<0.5	0.20	24
25.08.2025	N013025085	0.14	<0.1	<0.5	<0.5	0.25	25
26.08.2025	N020825085	<0.1	<0.1	<0.5	<0.5	0.29	23
NAAQS Limits for Industrial , Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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TEST REPORT

Table No. 6

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)				
Code & Station	: A6 - Near NIMCO Gate - Tivrewadi, Redi village				
Duration	: 24 Hrs				
Issue Date	: 05.09.2025				
Sampling & Test Method : IS 5182 & Lab SOP					
Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)
06.08.2025	N013825082	8	12	28	18
07.08.2025	N017925082	6	12	41	20
15.08.2025	N030325083	7	10	30	17
16.08.2025	N003225084	4	<9	36	24
22.08.2025	N021825084	5	9	47	25
23.08.2025	N006225085	9	10	43	21
25.08.2025	N013325085	10	9	41	24
26.08.2025	N021125085	12	11	49	26
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

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TEST REPORT

Table No. 7

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)				
Code & Station	: A7 - Near Primary School - sakalbhatwadi Redi village				
Duration	: 24 Hrs				
Issue Date	: 05.09.2025				
Sampling & Test Method : IS 5182 & Lab SOP					
Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)
06.08.2025	N013925082	9	12	38	17
07.08.2025	N018025082	12	11	40	23
15.08.2025	N030425083	5	9	34	21
16.08.2025	N003325084	<4	9	28	15
22.08.2025	N021925084	7	11	48	26
23.08.2025	N006325085	8	10	40	24
25.08.2025	N013425085	6	9	30	18
26.08.2025	N021225085	10	14	45	22
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

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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 : August, 2025

Code & Station	A1 - Core zone Within ML Area				A2 - Redi village (Within 200m from the ML Area)				A3 - Gaontala village			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
Min.	<4	<9	28	14	4	9	30	16	5	9	33	21
10%	7	9	31	15	5	10	31	17	6	10	34	22
25%	7	10	33	17	7	10	35	19	8	10	36	23
50%	8	11	36	20	9	11	38	21	9	12	38	25
75%	9	11	41	22	10	11	41	21	10	12	42	26
98%	10	12	47	23	11	13	51	28	12	13	47	28
Max.	10	12	47	23	11	13	52	29	12	13	48	28
Avg.	8	10	37	19	8	11	39	21	9	11	39	25
SD	1	1	6	3	3	1	7	4	2	1	5	3
No. of obs	8				8				8			
Code & Station	A4 - Kanyalwadi village				A5 - Shiroda village							
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}				
Min.	4	9	31	15	4	9	25	15				
10%	5	9	32	16	5	9	32	16				
25%	6	10	35	19	6	10	37	18				
50%	8	11	38	20	7	11	39	22				
75%	8	12	43	21	9	12	46	25				
98%	9	13	45	22	12	13	48	28				
Max.	9	13	45	22	12	13	48	28				
Avg.	7	11	38	20	7	11	39	21				
SD	2	2	5	2	3	1	8	5				
No. of obs	8				8							

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TEST REPORT

Table No. 9

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			
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)			
Nature of Sample	: Surface water			
Sample Location	: W1 - Pit water			
Date of sample collection	: 13.08.2025			
Date of sample receipt	: 14.08.2025			
Report No	: M000825083			
Issue Date	: 05.09.2025			
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI			
Sl. No.	Parameters	W1 Results	Standards For Discharge of Environmental Pollutants	Method of Testing
1	Colour (Hazen Units), & Odour	<1	—	IS:3025 (P-4)
2	Suspended Solids (mg/l), Max	2	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 ₃ (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	22	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 ⁺⁶ (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	0.28	2.0	APHA 24th Edition 4500F
25	Dissolved Phosphates as PO ₄ (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 ₆ H ₅ 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	2.5	10	IS 3025 (P-34) 1986 RA 2014

END OF REPORT

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ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory
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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
Sample Location	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample	: Surface water
Sample Location	: W2 - Pit Discharge water, W3 - Runoff water from dump
Date of sample collection	: 13.08.2025
Date of sample receipt	: 14.08.2025
Issue Date	: 05.09.2025
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI

Report No		-	M000825083A	Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
Sample code		W2	W3		
Sl. No.	Parameters	Results			
1	Colour (Hazen Units), & Odour	<1		--	IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	10		100	IS 3025 (P-17) 2022
3	Particle size of suspended solids	Pass through 850 micron		Shall Pass through 850 micron	AOHA 23rd edition
4	pH	6.85		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 & Grase (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 ₃ (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	30		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 ⁺⁶ (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	0.28		2.0	APHA 24th Edition 4500F
25	Dissolved Phosphates as PO ₄ (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 ₆ H ₅ 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	2		10	IS 3025 (P-64) 1998 Ed. 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 State.					
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Nature of Sample	: Surface water					
Sample Location	: SW1 - Kanyal tank water, SW2 - Nallah water Near Kanyalwadi SW3- Near Hanuman temple Kanyalwadi village					
Date of sample collection	: 13.08.2025					
Date of sample receipt	: 14.08.2025					
Issue Date	: 05.09.2025					
Ref : IS : 2296 Water Quality Standards						
Sl. No.	Report No	M001225083	M001325083	M001425083	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	6.75	6.56	6.52	6.5 to 8.5	IS 3025 (Part 11) 2022
3	Dissolved Oxygen (as O ₂), mg/l	5.70	5.60	5.80	Min 4	IS 3025 (Part 38):1989 RA 2019
4	Biochemical Oxygen Demand (as O ₂), mg/l	<3	<3	<3	Max 3	IS 3025 (Part 44) 2023
5	Total Coliform (MPN/100ml)	70	63	109	5000	IS 15185 2016 RA 2021
6	Total Dissolved Solids, (mg/l)	152	190	110	1500	IS 3025 (Part 16) 2023
7	Chloride (as Cl),mg/l	55.0	62.0	20.0	600	IS 3025 (Part 32) :1988 RA 2019
8	Sulphates as SO ₄ (mg/l)	20.0	26.0	18.0	400	APHA (24th Edition):4110B
9	Nitrates (as NO ₃),mg/l	2.50	3.00	1.40	50	IS 3025 (Part 34-Sec1) 2023
10	Fluoride (as F),mg/l	<0.1	<0.1	<0.1	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 ⁺⁶), mg/l,	<0.03	<0.03	<0.03	0.05	IS 3025 (Part 52):2019 RA 2023
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 ₆ H ₅ 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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TEST REPORT

Table No. 12

Name of the Client		: M/s. Minerals and Metals		
Name of the Project		: Redi Iron Ore Mine		
Sample Location		: STP1 - Sewage Treatment Plant		
Date of sample collection		: 13.08.2025		
Date of sample receipt		: 14.08.2025		
Report no		: M001525083		
Issue Date		: 05.09.2025		
Ref		:Schedule -1 SI.No-2 of CTO		
Sample code		STP1	Standards	Method of Testing
Sl. No.	Parameters	Results		
1	pH	6.53	-	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD ₅ 27 ⁰ C, mg/l	15	<30	IS 3025 (Part 44) 2023
3	Total Suspended Solids, at 105 ⁰ C, mg/l	10	<50	IS 3025 (P-17) 2022
4	Chemical Oxygen Demand (COD) (mg/l)	40	<100	IS 3025 (Part 58) 2023

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