

ENVIRONMENTAL MONITORING REPORT

Project	REDI IRON ORE MINE
Location	Redi Village Vengurla Taluka, Sindhudurg Dist Maharashtra
Client	MINERALS AND METALS
Office Address	P. O. Redi, Tal Vengurla, Sindhudurga 416517, Maharashtra (India)
Monitoring Month	April -2026

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

Recognised by MoEF&CC Under E(P) Act 1986

&

Accredited by NABL

#948, 2nd Cross, Kammanahalli Main Road,

St Thomas Town Post,

Bangalore- 560 084, Karnataka

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ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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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	: Redl 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	: 05.05.2026						
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
10.04.2026	N007026043	15	17	54	28	<20	<1
11.04.2026	N013326043	12	19	50	25	<20	<1
13.04.2026	N020526043	9	13	45	23	<20	<1
14.04.2026	N028626043	11	16	48	25	<20	<1
20.04.2026	N008926044	13	18	56	30	<20	<1
21.04.2026	N012826044	10	14	52	28	<20	<1
29.04.2026	N002226051	12	16	50	24	<20	<1
30.04.2026	N006226051	11	13	40	22	<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
10.04.2026	N007026043	0.18	<0.1	<0.5	<0.5	0.22	23
11.04.2026	N013326043	0.20	<0.1	<0.5	<0.5	0.31	26
13.04.2026	N020526043	0.14	<0.1	<0.5	<0.5	0.26	20
14.04.2026	N028626043	0.22	<0.1	<0.5	<0.5	0.31	22
20.04.2026	N008926044	0.11	<0.1	<0.5	<0.5	0.25	25
21.04.2026	N012826044	0.14	<0.1	<0.5	<0.5	0.27	21
29.04.2026	N002226051	0.16	<0.1	<0.5	<0.5	0.30	24
30.04.2026	N006226051	0.21	<0.1	<0.5	<0.5	0.25	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. 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	: 05.05.2026
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
10.04.2026	N006526043	14	18	56	29	<20	<1
11.04.2026	N012826043	13	15	44	24	<20	<1
13.04.2026	N020226043	11	14	50	27	<20	<1
14.04.2026	N028326043	13	18	55	33	<20	<1
20.04.2026	N008426044	12	15	43	26	<20	<1
21.04.2026	N012326044	10	13	48	28	<20	<1
29.04.2026	N001926051	14	18	48	30	<20	<1
30.04.2026	N005926051	11	17	51	28	<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
10.04.2026	N006526043	0.15	<0.1	<0.5	<0.5	0.42	20
11.04.2026	N012826043	0.11	<0.1	<0.5	<0.5	0.35	24
13.04.2026	N020226043	0.24	<0.1	<0.5	<0.5	0.25	22
14.04.2026	N028326043	0.12	<0.1	<0.5	<0.5	0.28	27
20.04.2026	N008426044	0.21	<0.1	<0.5	<0.5	0.34	25
21.04.2026	N012326044	0.18	<0.1	<0.5	<0.5	0.42	20
29.04.2026	N001926051	0.27	<0.1	<0.5	<0.5	0.31	26
30.04.2026	N005926051	0.11	<0.1	<0.5	<0.5	0.25	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.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 : 05.05.2026
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
10.04.2026	N006726043	14	20	56	32	<20	<1
11.04.2026	N013026043	9	16	46	26	<20	<1
13.04.2026	N020426043	11	19	40	22	<20	<1
14.04.2026	N028526043	15	20	54	30	<20	<1
20.04.2026	N008626044	12	16	48	28	<20	<1
21.04.2026	N012526044	10	14	53	24	<20	<1
29.04.2026	N002126051	14	16	58	30	<20	<1
30.04.2026	N006126051	11	22	56	27	<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
10.04.2026	N006726043	0.21	<0.1	<0.5	<0.5	0.39	29
11.04.2026	N013026043	0.27	<0.1	<0.5	<0.5	0.28	26
13.04.2026	N020426043	0.24	<0.1	<0.5	<0.5	0.22	20
14.04.2026	N028526043	0.28	<0.1	<0.5	<0.5	0.25	25
20.04.2026	N008626044	0.22	<0.1	<0.5	<0.5	0.36	28
21.04.2026	N012526044	0.17	<0.1	<0.5	<0.5	0.28	30
29.04.2026	N002126051	0.19	<0.1	<0.5	<0.5	0.24	27
30.04.2026	N006126051	0.25	<0.1	<0.5	<0.5	0.29	29
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 : 05.05.2026
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
08.04.2026	N019026042	10	18	47	29	<20	<1
09.04.2026	N023126042	12	20	44	25	<20	<1
15.04.2026	N032526043	12	16	53	30	<20	<1
16.04.2026	N035526043	9	13	50	28	<20	<1
22.04.2026	N015726044	10	15	40	25	<20	<1
23.04.2026	N018726044	14	18	56	33	<20	<1
27.04.2026	N018526045	11	14	52	28	<20	<1
28.04.2026	N026826045	9	12	43	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
08.04.2026	N019026042	0.20	<0.1	<0.5	<0.5	0.31	22
09.04.2026	N023126042	0.18	<0.1	<0.5	<0.5	0.42	25
15.04.2026	N032526043	0.11	<0.1	<0.5	<0.5	0.40	28
16.04.2026	N035526043	0.15	<0.1	<0.5	<0.5	0.37	24
22.04.2026	N015726044	0.25	<0.1	<0.5	<0.5	0.22	20
23.04.2026	N018726044	0.10	<0.1	<0.5	<0.5	0.35	23
27.04.2026	N018526045	0.14	<0.1	<0.5	<0.5	0.30	20
28.04.2026	N026826045	0.21	<0.1	<0.5	<0.5	0.28	28
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 : 05.05.2026
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
10.04.2026	N006626043	9	13	47	25	<20	<1
11.04.2026	N012926043	12	18	54	33	<20	<1
13.04.2026	N020326043	10	15	50	27	<20	<1
14.04.2026	N028426043	9	13	45	25	<20	<1
20.04.2026	N008526044	14	19	52	30	<20	<1
21.04.2026	N012426044	11	12	48	27	<20	<1
29.04.2026	N002026051	9	11	40	22	<20	<1
30.04.2026	N006026051	10	15	55	33	<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
10.04.2026	N006626043	0.21	<0.1	<0.5	<0.5	0.42	25
11.04.2026	N012926043	0.25	<0.1	<0.5	<0.5	0.37	22
13.04.2026	N020326043	0.19	<0.1	<0.5	<0.5	0.22	29
14.04.2026	N028426043	0.23	<0.1	<0.5	<0.5	0.45	20
20.04.2026	N008526044	0.20	<0.1	<0.5	<0.5	0.25	23
21.04.2026	N012426044	0.25	<0.1	<0.5	<0.5	0.33	21
29.04.2026	N002026051	0.28	<0.1	<0.5	<0.5	0.44	27
30.04.2026	N006026051	0.18	<0.1	<0.5	<0.5	0.34	22
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 : 05.05.2026					
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)
08.04.2026	N019126042	14	18	55	33
09.04.2026	N023226042	11	16	50	30
15.04.2026	N032626043	13	20	58	35
16.04.2026	N035626043	10	14	45	28
22.04.2026	N015826044	9	15	53	30
23.04.2026	N018826044	14	17	48	27
27.04.2026	N018626045	12	18	50	32
28.04.2026	N026926045	14	20	44	23
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. 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 : 05.05.2026					
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)
08.04.2026	N019226042	10	15	54	32
09.04.2026	N023326042	10	12	46	28
15.04.2026	N032726043	13	18	52	30
16.04.2026	N035726043	11	13	43	25
22.04.2026	N015926044	8	11	57	33
23.04.2026	N018926044	10	16	50	30
27.04.2026	N018726045	14	20	47	28
28.04.2026	N027026045	9	10	45	29
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

Fugitive Emission

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)						
Duration	: 08 Hrs						
Issue Date	: 05.05.2026						
Code & Station	Date of sample	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ (µg/m ³)	SPM (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
FA1- Unloading Point	10.04.2026	N007126043	12	18	120	200	0.36
	20.04.2026	N009026044	10	15	136	227	0.42
FA2 - Haulage Road	11.04.2026	N013426043	14	19	145	242	0.48
	21.04.2026	N012926044	11	15	128	221	0.33
FA3 - Loading Area	10.04.2026	N007226043	12	17	132	228	0.44
	20.04.2026	N009126044	9	13	142	237	0.32
Within in Mining Area Pollutant			SO ₂	NO ₂	RPM (PM ₁₀)	SPM (PM)	CO
Concentration in Ambient Air			120	120	250	500	4
Time Weighted Average			24 Hrs	24 Hrs	24 Hrs	24 Hrs	1 Hr
Note : * Parameters monitored for period of 1 hr							

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Table No. 9

STATISTICAL AIR QUALITY DATA

Name of the Client : M/s. Minerals and Metals												
Name of the Project : Redi Iron Ore Mine												
Month : April, 2026												
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.	9	13	40	22	10	13	43	24	9	14	40	22
10%	10	13	44	23	11	14	44	25	10	15	44	23
25%	11	14	47	24	11	15	47	27	11	16	48	26
50%	12	16	50	25	13	16	49	28	12	18	54	28
75%	12	17	53	28	13	18	52	29	14	20	56	30
98%	15	19	56	30	14	18	56	33	15	22	58	32
Max.	15	19	56	30	14	18	56	33	15	22	58	32
Avg.	12	16	49	26	12	16	49	28	12	18	51	27
SD	2	2	5	3	1	2	5	3	2	3	6	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.	9	12	40	25	9	11	40	22				
10%	9	13	42	25	9	12	44	24				
25%	10	14	44	25	9	13	47	25				
50%	11	16	49	28	10	14	49	27				
75%	12	18	52	29	11	16	53	31				
98%	14	20	56	33	14	19	55	33				
Max.	14	20	56	33	14	19	55	33				
Avg.	11	16	48	28	11	15	49	28				
SD	2	3	6	3	2	3	5	4				
No. of obs	8				8							

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TEST REPORT

Table No. 10

NOISE LEVEL DATA

Report No : ELMES026437

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		: Sound Levels		
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
Issue Date		: 05.05.2026		
Sampling & Test Method		: IS:9989		
Code No.	Monitoring stations	Date of Monitoring	Day L _{eq}	Night L _{eq}
Bufferzone				
N1	Redi village	08.04.2026	50.1	38.6
N2	Bombdojiwajici wadi	09.04.2026	47.2	38.3
N3	Gaontala village	08.04.2026	46.5	37.6
N4	Kanyalwadi village	08.04.2026	49.2	39.5
N5	Shiroda village	09.04.2026	48.9	37.5
N6	Tiroda village	09.04.2026	47.3	37.2
Permissible Limits of Ambient Noise Levels as per CPCB Guidelines				
			Leq. Limit dB(A)	
			Day	Night
Residential area			55	45
Code No.	Monitoring stations	Date of Monitoring	Day L _{eq}	Night L _{eq}
Bufferzone				
N7	Near NIMCO Gate - Tivrewadi, Redi village	10.04.2026	57.3	49.4
N8	Near Primary School - sakalbhatwadi, Redi village	10.04.2026	53.2	46.2
Permissible Limits of Ambient Noise Levels as per CPCB Guidelines				
			Leq. Limit dB(A)	
			Day	Night
Commerecial area			65	55
Code No.	Monitoring stations	Date of Monitoring	Day L _{eq}	Night L _{eq}
Corezone				
N9	Near Mine office	10.04.2026	56.7	43.5
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. 11

NOISE LEVEL DATA

Report No ; ELMES026438

Name of the Client		: M/s. Minerals and Metals		
Name of the Project		: Redi Iron Ore Mine		
Particulars of sample collected		: Sound Levels		
Location		: Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra		
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
Issue Date		: 03.02.2026		
Sampling & Test Method		: IS:9989		

Code No.	Monitoring stations	Date of Monitoring	Day	Remarks
			L _{eq}	
Heavy Earth Moving Machineries				
N1	Excavator EC480DL	08.01.2026	59.3	During operation inside of the cabin
			62.5	During operation 5mts outside of the cabin
N2	Dozer RD-0014	08.01.2026	60.1	During operation inside of the cabin
			64.2	During operation 5mts outside of the cabin

Permissible limits as per ILO Code of Practice
 For Unprotected ear - 8 hrs working shift
 Warning limit - 85 dB(A)
 Danger limit - 90 dB(A)
 Worker not to be exposed for more than 115 dB(A)
 With ear protection -
 130 dB(A) 'Impulse' or 120 dB(A) 'Fast'
 No entry when noise level exceeds 140 dB(A)

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TEST REPORT

Table No. 12

Table No.:

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	: 10.04.2026
Date of sample receipt	: 11.04.2026
Report No	: M000226043
Issue Date	: 05.05.2026
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI

Sample Code		W1	Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
Sl. No.	Parameters	Results		
1	Colour (Hazen Units), & Odour	10	—	IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	23	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	6.44	5.5 to 9.0	IS 3025 (P-11) 2022
5	Temperature ° C	25	Shall not exceed 5 ^o C above the receiving water temp	IS 3025 (Part 9) 2023
6	Oil & Grrase (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 ^o 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	<0.1	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	3.5	10	IS 3025 (P-34) 1988 RA 2019

END OF REPORT

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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, Maharashtra State.	
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		: 10.04.2026	
Date of sample receipt		: 11.04.2026	
Issue Date		: 05.05.2026	
Ref		: Environmental (P) Rules, 1986 SCHEDULE VI	
Report No		M000326043	-
Sample code		W2	W3
Sl. No.	Parameters	Results	Standards For Effluent Discharge of Environmental Pollutants
1	Colour (Hazen Units), & Odour	5	—
2	Suspended Solids (mg/l), Max	20	IS:3025 (part-4)
3	Particle size of suspended solids	Pass through 850 micron	100 IS 3025 (P-17) 2022
4	pH	6.54	Shall Pass through 850 micron APHA 23rd edition
5	Temperature °C	25	5.5 to 9.0 IS 3025 (P-11) 2022
6	Oil & Grease (mg/l), Max	<4.0	Shall not exceed 5° C above the receiving water IS 3025 (Part 9) 2023
7	Total Residual Chlorine (mg/l), Max	<0.1	10 IS 3025 (P-39) 2021
8	Ammonical Nitrogen (mg/l), Max	<0.1	1.0 IS 3025 (P-26) 2021
9	Total Kjeldahl Nitrogen (mg/l), Max	<0.1	50 IS 3025 (P-34 Sec 1) 2023
10	Free Ammonia as NH ₃ (mg/l), Max	<0.01	100 IS 3025 (P-34 Sec 1) 2023
11	BOD [3 days at 27°C] (mg/l), Max	<3.0	5.0 IS 3025 (P-34 Sec 1) 2023
12	COD (mg/l), Max	26	30 IS 3025 (Part 44) 2023
13	Arsenic as As (mg/l), Max	<0.05	250 IS 3025 (Part 58) 2023
14	Mercury as Hg (mg/l), Max	<0.001	0.2 APHA 24th Ed Method No.3030K
15	Lead as Pb (mg/l), Max	<0.05	0.01 APHA 24th Ed Method No.3030K
16	Cadmium as Cd (mg/l), Max	<0.01	0.1 APHA 24th Ed Method No.3030K
17	Hexavalent Chromium as Cr ⁶⁺ (mg/l), Max	<0.03	2.0 APHA 24th Ed Method No.3030K
18	Total Chromium as Cr (mg/l), Max	<0.01	0.1 IS 3025 (P-52) 2014
19	Copper as Cu (mg/l), Max	<0.05	2.0 APHA 24th Ed Method No.3030K
20	Zinc as Zn (mg/l), Max	<0.05	3.0 APHA 24th Ed Method No.3030K
21	Selenium as Se (mg/l), Max	<0.05	5.0 APHA 24th Ed Method No.3030K
22	Nickel as Ni (mg/l), Max	<0.05	0.05 APHA 24th Ed Method No.3030K
23	Cyanide as CN (mg/l), Max	<0.01	3.0 APHA 24th Ed Method No.3030K
24	Fluoride as F (mg/l), Max	<0.1	0.2 IS 3025 (P-27) Sec 1 2021
25	Dissolved Phosphates as PO ₄ (mg/l), Max	<0.1	2.0 APHA 24th Edition 4500F
26	Sulphide as S (mg/l), Max	<0.01	5.0 IS 3025 (P-31) Sec 1 2022
27	Phenolic Compounds as C ₆ H ₅ OH (mg/l), Max	<0.001	2.0 IS 3025 (P-29) 2022
28	Manganese as Mn (mg/l), Max	<0.01	1.0 IS 3025 (P-43) Sec 1 2022
29	Iron as Fe (mg/l), Max	<0.05	2 APHA 24th Ed Method No.3030K
30	Vanadium as V (mg/l), Max	<0.01	3 APHA 24th Ed Method No.3030K
31	Nitrate Nitrogen (mg/l), Max	4.0	0.2 APHA 24th Ed Method No.3030K

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, 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	: 10.04.2026
Date of sample receipt	: 11.04.2026
Issue Date	: 05.05.2026
Ref : IS : 2296 Water Quality Standards	

Sl. No.	Report No	M000826043	M000726043	M000826043	Limits	Method of Testing
	Sample Code	SW1	SW2	SW3		
	Parameters	Results				
1	Colour (Hazen Units)	3	3	1	300	IS 3025 (Part 4) 2021
2	pH	7.80	7.67	6.59	6.5 to 8.5	IS 3025 (Part 11) 2022
3	Dissolved Oxygen (as O ₂), mg/l	5.80	5.70	5.60	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)	92	98	95	5000	IS 15185 2016 RA 2021
6	Total Dissolved Solids, (mg/l)	156	280	216	1500	IS 3025 (Part 16) 2023
7	Chloride (as Cl),mg/l	68.0	105.0	100.0	600	IS 3025 (Part 32) :1988 RA 2019
8	Sulphates as SO ₄ (mg/l)	22.0	60.0	34.0	400	APHA (24th Edition):4110B
9	Nitrates (as NO ₃),mg/l	1.80	4.20	3.50	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. 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
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample	: Ground Water
Sample Location	: GW1 - Tiroda village open well, GW2 - Redi village open well
Date of sample collection	: 10.04.2026
Date of sample receipt	: 11.04.2026
Issue Date	: 05.05.2026
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	6.67	6.58	6.5 to 8.5	6.5 - 8.5	IS 3025 (Part 11) 2022
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (Part 6) 2023
5	Turbidity, NTU	<0.1	0.8	1	5	IS 3025 (Part 10) 2023
6	Total Dissolved Solids, mg/l	46.0	314.0	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 66) 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	4.0	24.0	75	200	IS 3025 (Part 40) 2021
13	Chloramines as Cl ₂	<0.1	<0.1	4	4	Clause 6.1 of IS 3025 (Part 26) 2021
14	Chloride as Cl (mg/l)	20.00	105.00	250	1000	IS 3025 (Part 32): 1988 RA 2019
15	Copper (as Cu), mg/l	<0.0005	<0.0005	0.05	1.5	IS 3025 (Part 65) 2022
16	Fluoride (as F), mg/l	<0.1	<0.1	1	1.5	IS 3025 (Part 60) Sec 1 2022
17	Residual, Free Chlorine, mg/l	<0.1	<0.1	0.2	1	IS 3025 (Part 26) 2021
18	Iron (as Fe), mg/l	<0.005	<0.005	1.0	1.0	IS 3025 (Part 65) 2022
19	Magnesium (as Mg), mg/l	2.91	9.72	30	100	IS 3025 (Part 46) 2023
20	Manganese (as Mn), mg/l	<0.001	<0.001	0.1	0.3	IS 3025 (Part 65) 2022
21	Mineral Oil, mg/l	<0.5	<0.5	1.0	1.0	IS 3025 (Part 39) 2021
22	Nitrates (as NO ₃), mg/l	<0.1	4.00	45	45	IS 3025 (Part 34) Sec 1 2023
23	Phenolics (as C ₆ H ₅ OH), mg/l	<0.001	<0.001	0.001	0.002	IS 3025 (Part 43/Sec 1) 2022
24	Selenium (as Se), mg/l	<0.0005	<0.0005	0.01	0.01	IS 3025 (Part 65) 2022
25	Silver (as Ag), mg/l	<0.005	<0.005	0.1	0.1	IS 3025 (Part 65) 2022
26	Sulphate (as SO ₄), mg/l	2.00	34.00	200	400	IS 3025 (Part 24/Sec 1) 2022
27	Sulphide (as H ₂ S), mg/l	<0.01	<0.01	0.05	0.05	IS 3025 (Part 29) 2022
28	Total Alkalinity (as CaCO ₃), mg/l	16.0	65.0	200	600	IS 3025 Part (23) 2023
29	Total Hardness (as CaCO ₃), mg/l	22.0	100.0	200	600	IS 3025 (Part 21) : 2009 RA 2023
30	Zinc (as Zn), mg/l	<0.005	<0.005	5	15	IS 3025 (Part 65) 2022
31	Cadmium (as Cd), mg/l	<0.0005	<0.0005	0.003	0.003	IS 3025 (Part 65) 2022
32	Cyanide (as CN), mg/l	<0.01	<0.01	0.05	0.05	IS 3025 (Part 27/Sec 1) 2021
33	Lead (as Pb), mg/l	<0.0005	<0.0005	0.01	0.01	IS 3025 (Part 65) 2022
34	Mercury (as Hg), mg/l	<0.0005	<0.0005	0.001	0.001	IS 3025 (Part 65) 2022
35	Molybdenum (as Mo), mg/l	<0.0005	<0.0005	0.07	0.07	IS 3025 (Part 65) 2022
36	Nickel (as Ni), mg/l	<0.01	<0.01	0.02	0.02	IS 3025 (Part 65) 2022
37	Arsenic (as As), mg/l	<0.0005	<0.0005	0.01	0.01	IS 3025 (Part 65) 2022
38	Total Chromium (as Cr), mg/l	<0.001	<0.001	0.05	0.05	IS 3025 (Part 65) 2022
39	Escherichia coli/100ml	Not Detected	Not Detected	Shall not be detectable in any		IS 15185 2016 RA 2021
40	Total Coliform /100ml	Not Detected	Not Detected	100ml Sample		IS 15185 2016 RA 2021
41	Electrical Conductivity (µmhos/cm)	83.0	570.0	—	—	IS 3025 (Part 14) : 2013 RA 2023
42	Water levels in well from surface (m)	6.30	4.30	—	—	IS 15896 2011

"END OF REPORT"


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TEST REPORT

Table No. 16

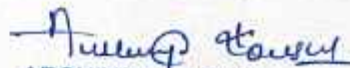
Name of the Client : M/s. Minerals and Metals
Name of the Project : Redi Iron Ore Mine
Location : Redi village, Vengurla taluka, Sindhudurg dist, MH
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample : Ground Water
Sample Location : GW3 -Shiroda village open well, GW4 - Kanyalwadi village open well,
Date of sample collection : 10.04.2026
Date of sample receipt : 11.04.2026
Issue Date : 05.05.2026

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

Report No		M001126043	M001226043	Desirable Limits	Permissible Limits	Method of Testing
Sl. 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	6.66	6.65	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	0.2	0.5	1	5	IS 3025 (Part 10) 2023
6	Total Dissolved Solids,mg/l	162.0	206.0	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	16.00	9.61	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)	60.0	90.0	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	9.72	6.31	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 ₃),mg/l	4.50	4.00	45	45	IS 3025 (Part 34) Sec 1 2023
25	Phenolics (as C ₆ H ₅ 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 ₄),mg/l	32.00	16.00	200	400	IS 3025 (Part 24/Sec1) 2022
29	Sulphide (as H ₂ S) , mg/l	<0.01	<0.01	0.05	0.05	IS 3025 (Part 29) 2022
30	Total Alkalinity (as CaCO ₃) mg/l	32.0	18.0	200	600	IS 3025 Part(23) 2023
31	Total Hardness (as CaCO ₃),mg/l	80.0	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		IS 15185 2016 RA 2021
42	Total Coliform /100ml)	Not Detected	Not Detected	100ml Sample		IS 15185 2016 RA 2021
43	Electrical Conductivity (µmhos/cm)	300.0	380.0	--	--	IS 3025 (Part 14) : 2013 RA 2023
42	Water levels in well from surface (m)	3.20	0.57	--	--	IS 15896 2011

"END OF REPORT"


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TEST REPORT

Table No. 17

Name of the Client : M/s. Minerals and Metals
Name of the Project : Redl Iron Ore Mine
Location : Redl village, Venguria taluka, Sindhudurg dist, MH
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample : Ground Water
Sample Location : GW5 - Gaontala village open well, GW6 - Tap water (near mines office)
Date of sample collection : 10.04.2026
Date of sample receipt : 11.04.2026
Issue Date : 05.05.2026

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

Report No		M001326043	M001426043	Desirable Limits	Permissible Limits	Method of Testing
Sl. No.	Parameters	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) 2016
3	pH Value	6.53	6.71	6.5 to 8.5	6.5 - 8.5	IS 3025 (Part 11) 2022
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (Part 6) 2023
5	Turbidity,NTU	0.2	<0.1	1	5	IS 3025 (Part 10) 2023
6	Total Dissolved Solids,mg/l	70.0	76.0	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	4.00	4.30	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)	22.0	24.0	250	1000	IS 3025 (Part32):1986 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	2.43	<0.1	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 ₃),mg/l	2.20	1.20	45	45	IS 3025 (Part 34) Sec 1 2023
25	Phenolics (as C ₆ H ₅ 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 ₄),mg/l	2.20	1.00	200	400	IS 3025 (Part 24/Sec1) 2022
29	Sulphide (as H ₂ S) , mg/l	<0.01	<0.01	0.05	0.05	IS 3025 (Part 29) 2022
30	Total Alkalinity (as CaCO ₃) mg/l	10.0	22.0	200	600	IS 3025 Part(23) 2023
31	Total Hardness (as CaCO ₃),mg/l	10.0	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 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)	130.0	140.0	—	—	IS 3025 (Part 14) : 2013 RA 2023
42	Water levels in well from surface (m)	3.90	—	—	—	IS 15896 2011

"END OF REPORT"


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TEST REPORT

Table No. 17A

Table NO. 17

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				
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)				
Nature of Sample	: Ground Water				
Sample Location	: GW7 - Kanyalwadi village Bore well water,				
Date of sample collection	: 10.04.2026				
Date of sample receipt	: 11.04.2026				
Issue Date	: 05.05.2026				
Ref	: IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)				
Report No	M001926043				
Sl. No.	Parameters	Results	Desirable Limits	Permissible Limits	Method of Testing
		GW7			
1	Colour (Hazen Units)	<1	5	15	IS 3025 (Part 4) 2021
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part 5) 2018
3	pH Value	6.67	6.5 to 8.5	6.5 - 8.5	IS 3025 (Part 11) 2022
4	Taste	Agreeable	Agreeable	Agreeable	IS 3025 (Part 8) 2023
5	Turbidity,NTU	<0.1	1	5	IS 3025 (Part 10) 2023
6	Total Dissolved Solids,mg/l	385.0	500	2000	IS 3025 (Part 16) 2023
7	Aluminium (as Al)	<0.005	0.03	0.2	IS 3025 (Part 65) 2022
8	Ammonia (as total Ammonia -N),mg/l	<0.1	0.5	0.5	IS 3025 (Part 34) Sec 1 2023
9	Anionic Detergents (as MBAS),mg/l	<0.1	0.2	1.0	IS 3025 (Part 68) 2023
10	Barium (as Ba), mg/l	<0.005	0.7	0.7	IS 3025 (Part 65) 2022
11	Boron (as B), mg/l	<0.1	0.5	2.4	IS 3025 (Part 57) 2021
12	Calcium (as Ca),mg/l	22.04	75	200	IS 3025 (Part 40) 2021
13	Chloramines as Cl2	<0.1	4	4	Clause 6.1 of IS 3025 (Part 26) 2021
14	Chloride as Cl (mg/l)	160.0	250	1000	IS 3025 (Part 32) 1988 RA 2019
16	Copper (as Cu),mg/l	<0.0005	0.05	1.5	IS 3025 (Part 65) 2022
17	Fluoride (as F),mg/l	<0.1	1	1.5	IS 3025 (Part 60) Sec1 2022
19	Residual, Free Chlorine,mg/l	<0.1	0.2	1	IS 3025 (Part 28) 2021
20	Iron (as Fe),mg/l	<0.005	1.0	1.0	IS 3025 (Part 65) 2022
21	Magnesium (as Mg),mg/l	8.50	30	100	IS 3025 (Part 46) 2023
22	Manganese (as Mn),mg/l	<0.001	0.1	0.3	IS 3025 (Part 65) 2022
23	Mineral Oil,mg/l	<0.5	1.0	1.0	IS 3025 (Part 39) 2021
24	Nitrates (as NO ₃), mg/l	2.70	45	45	IS 3025 (Part 34) Sec 1 2023
25	Phenolics (as C ₆ H ₅ OH),mg/l	<0.001	0.001	0.002	IS 3025 (Part 43/Sec1) 2022
26	Selenium (as Se),mg/l	<0.0005	0.01	0.01	IS 3025 (Part 65) 2022
27	Silver (as Ag), mg/l	<0.005	0.1	0.1	IS 3025 (Part 65) 2022
28	Sulphate (as SO ₄),mg/l	58.00	200	400	IS 3025 (Part 24/Sec1) 2022
29	Sulphide (as H ₂ S) , mg/l	<0.01	0.05	0.05	IS 3025 (Part 29) 2022
30	Total Alkalinity (as CaCO ₃) mg/l	60.0	200	600	IS 3025 Part(23) 2023
31	Total Hardness (as CaCO ₃),mg/l	90.0	200	600	IS 3025 (Part 21) - 2009 RA 2023
32	Zinc (as Zn),mg/l	<0.005	5	15	IS 3025 (Part 65) 2022
33	Cadmium (as Cd),mg/l	<0.0005	0.003	0.003	IS 3025 (Part 65) 2022
34	Cyanide (as CN),mg/l	<0.01	0.05	0.05	IS 3025 (Part 27/Sec1) 2021
35	Lead (as Pb),mg/l	<0.0005	0.01	0.01	IS 3025 (Part 65) 2022
36	Mercury (as Hg),mg/l	<0.0005	0.001	0.001	IS 3025 (Part 65) 2022
37	Molybdenum (as Mo), mg/l	<0.0005	0.07	0.07	IS 3025 (Part 65) 2022
38	Nickel (as Ni),mg/l	<0.01	0.02	0.02	IS 3025 (Part 65) 2022
39	Arsenic (as As),mg/l	<0.0005	0.01	0.01	IS 3025 (Part 65) 2022
40	Total Chromium (as Cr),mg/l	<0.001	0.05	0.05	IS 3025 (Part 65) 2022
41	Escherichia coli/100ml	Not Detected	Shall not be detectable in		IS 15185 2016 RA 2021
42	Total Coliform /100ml)	Not Detected	any 100ml Sample		IS 15185 2016 RA 2021
43	Electrical Conductivity (µmhos/cm)	700.0	—	—	IS 3025 (Part 14) : 2013 RA 2023

"END OF REPORT"


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TEST REPORT

Table No. 18

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		: 10.04.2026		
Date of sample receipt		: 11.04.2026		
Report no		: M001526043		
Issue Date		: 05.05.2026		
Ref		: Schedule -1 Sl.No-2 of CTO		
Sample code		STP1		
Sl. No.	Parameters	Results	Standards	Method of Testing
1	pH	6.92	-	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD ₅ 27 ^o C, mg/l	20	<30	IS 3025 (Part 44) 2023
3	Total Suspended Solids, at 105 ^o C, mg/l	22	<50	IS 3025 (P-17) 2022
4	Chemical Oxygen Demand (COD) (mg/l)	46	<100	IS 3025 (Part 58) 2023

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