

ENVIRONMENTAL MONITORING REPORT

January, 2023

PROJECT: RAMANADURGA IRON ORE MINE

**ML NO. 2141
Dharmapura Village
Sandur Taluk, Ballari District,
Karnataka**

Lessee

M/S. Sri. KUMARASWAMY MINERAL EXPORTS PVT. LTD.,

**D. No. 462, SMIORE Colony,
Near Fire Station, Kudligi Road
SANDUR - 583119
BELLARY, KARNATAKA**

CONSULTANTS

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Table No. 1

TEST REPORT OF AMBIENT AIR QUALITY

MES/AQ/TR/06/00

Name of the Project : Ramanadurga Iron Ore Mine (ML No. 2141)
 Name of the Client : M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd
 Station at & Code : A - I, Dharmapura
 Duration : 24 Hrs
 Date of Report : 06.02.2023
 Reference IS 5182 Report No : MES/WS/ARN/199

Date of Sampling	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
05.01.2023	10	13	45	26	<20	<1
07.01.2023	8	11	56	30	<20	<1
09.01.2023	9	11	50	27	<20	<1
11.01.2023	10	13	40	24	<20	<1
18.01.2023	11	14	48	27	<20	<1
20.01.2023	8	11	39	20	<20	<1
25.01.2023	11	12	54	27	<20	<1
27.01.2023	9	10	46	24	<20	<1
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	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
05.01.2023	0.11	<0.5	<0.5	<0.5	0.15	0
07.01.2023	0.12	<0.5	<0.5	<0.5	0.24	0
09.01.2023	0.09	<0.5	<0.5	<0.5	0.31	0
11.01.2023	0.07	<0.5	<0.5	<0.5	0.32	0
18.01.2023	0.11	<0.5	<0.5	<0.5	0.15	0
20.01.2023	0.09	<0.5	<0.5	<0.5	0.09	0
25.01.2023	0.07	<0.5	<0.5	<0.5	0.05	0
27.01.2023	0.15	<0.5	<0.5	<0.5	0.12	0
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

TEST REPORT OF AMBIENT AIR QUALITY

MES/AQ/TR/06/00

Name of the Project : Ramanadurga Iron Ore Mine (ML No. 2141)
 Name of the Client : M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd
 Station at & Code : A - II, Yeshwanthanagar
 Duration : 24 Hrs
 Date of Report : 06.02.2023
 Reference IS 5182 Report No : MES/WS/ARN/200

Date of Sampling	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
05.01.2023	11	12	45	27	<20	<1
07.01.2023	10	14	52	29	<20	<1
09.01.2023	12	16	38	21	<20	<1
11.01.2023	11	12	57	31	<20	<1
18.01.2023	10	13	50	50	<20	<1
20.01.2023	10	11	58	30	<20	<1
25.01.2023	12	14	46	28	<20	<1
27.01.2023	8	9	49	27	<20	<1
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	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
05.01.2023	0.09	<0.5	<0.5	<0.5	0.19	28
07.01.2023	0.15	<0.5	<0.5	<0.5	0.22	25
09.01.2023	0.09	<0.5	<0.5	<0.5	0.33	26
11.01.2023	0.10	<0.5	<0.5	<0.5	0.27	20
18.01.2023	0.14	<0.5	<0.5	<0.5	0.24	21
20.01.2023	0.11	<0.5	<0.5	<0.5	0.31	26
25.01.2023	0.09	<0.5	<0.5	<0.5	0.30	24
27.01.2023	0.12	<0.5	<0.5	<0.5	0.28	25
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

TEST REPORT OF AMBIENT AIR QUALITY

MES/AQ/TR/06/00

Name of the Project : Ramanadurga Iron Ore Mine (ML No. 2141)
 Name of the Client : M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd
 Station at & Code : A - III, Sushila Nagar village
 Duration : 24 Hrs
 Date of Report : 06.02.2023
 Reference IS 5182 Report No : MES/WS/ARN/178

Date of Sampling	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
02.01.2023	9	10	32	16	<20	<1
04.01.2023	8	9	50	27	<20	<1
11.01.2023	7	10	52	28	<20	<1
13.01.2023	9	11	56	29	<20	<1
17.01.2023	8	12	53	20	<20	<1
19.01.2023	7	10	44	24	<20	<1
25.01.2023	9	11	48	17	<20	<1
27.01.2023	6	13	39	19	<20	<1
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	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
02.01.2023	0.15	<0.5	<0.5	<0.5	0.33	25
04.01.2023	0.09	<0.5	<0.5	<0.5	0.19	25
11.01.2023	0.10	<0.5	<0.5	<0.5	0.22	21
13.01.2023	0.07	<0.5	<0.5	<0.5	0.06	22
17.01.2023	0.10	<0.5	<0.5	<0.5	0.27	20
19.01.2023	0.12	<0.5	<0.5	<0.5	0.14	24
25.01.2023	0.05	<0.5	<0.5	<0.5	0.31	25
27.01.2023	0.15	<0.5	<0.5	<0.5	0.07	21
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

TEST REPORT OF AMBIENT AIR QUALITY

MES/AQ/TR/06/00

Name of the Project : Ramanadurga Iron Ore Mine (ML No. 2141)
 Name of the Client : M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd
 Station at & Code : A - IV Sandur Town
 Duration : 24 Hrs
 Date of Report : 06.02.2023
 Reference IS 5182 Report No : MES/WS/ARN/210

Date of Sampling	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
05.01.2023	9	13	50	27	<20	<1
07.01.2023	11	14	47	25	<20	<1
09.01.2023	8	11	40	22	<20	<1
11.01.2023	10	15	44	25	<20	<1
18.01.2023	6	9	53	27	<20	<1
20.01.2023	8	9	41	21	<20	<1
25.01.2023	10	12	48	23	<20	<1
27.01.2023	9	11	44	21	<20	<1
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	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
05.01.2023	0.14	<0.5	<0.5	<0.5	0.13	24
07.01.2023	0.13	<0.5	<0.5	<0.5	0.34	28
09.01.2023	0.15	<0.5	<0.5	<0.5	0.24	26
11.01.2023	0.09	<0.5	<0.5	<0.5	0.15	24
18.01.2023	0.08	<0.5	<0.5	<0.5	0.24	25
20.01.2023	0.16	<0.5	<0.5	<0.5	0.19	28
25.01.2023	0.17	<0.5	<0.5	<0.5	0.20	27
27.01.2023	0.05	<0.5	<0.5	<0.5	0.25	25
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

TEST REPORT OF AMBIENT AIR QUALITY

MES/AQ/TR/06/00

Name of the Project : Ramanadurga Iron Ore Mine (ML No. 2141)
 Name of the Client : M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd
 Station at & Code : A - V Core zone Within ML Area
 Duration : 24 Hrs
 Date of Report : 06.02.2023
 Reference IS 5182 Report No : MES/WS/ARN/209

Date of Sampling	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
05.01.2023	10	11	55	27	<20	<1
07.01.2023	9	14	50	29	<20	<1
09.01.2023	10	12	40	25	<20	<1
11.01.2023	7	15	51	26	<20	<1
18.01.2023	11	14	46	24	<20	<1
20.01.2023	9	15	56	31	<20	<1
25.01.2023	7	13	54	33	<20	<1
27.01.2023	10	14	52	30	<20	<1
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	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
05.01.2023	0.12	<0.5	<0.5	<0.5	0.13	28
07.01.2023	0.09	<0.5	<0.5	<0.5	0.25	22
09.01.2023	0.14	<0.5	<0.5	<0.5	0.34	20
11.01.2023	0.11	<0.5	<0.5	<0.5	0.19	28
18.01.2023	0.09	<0.5	<0.5	<0.5	0.20	25
20.01.2023	0.21	<0.5	<0.5	<0.5	0.25	26
25.01.2023	0.05	<0.5	<0.5	<0.5	0.15	25
27.01.2023	0.19	<0.5	<0.5	<0.5	0.33	22
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. 6

Test Report of Fugitive Emission

MES/AQ/TR/06/00

Name of the Client : M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd
Project : Ramanadurga Iron Ore Mine (ML No. 2141)
Station at & Code : A - VI, Loading point
Duration : 08 Hrs
Date of Report : 06.02.2023
Report No : MES/WS/ARN/211

Date of sample	Particulate mater ($\mu\text{g}/\text{m}^3$)
05.01.2023	258
09.01.2023	475

Date of sample	Particulate mater ($\mu\text{g}/\text{m}^3$)
07.01.2023	568
11.01.2023	488

Date of sample	Particulate mater ($\mu\text{g}/\text{m}^3$)
05.01.2023	524
09.01.2023	196

Date of sample	Particulate mater ($\mu\text{g}/\text{m}^3$)
07.01.2023	556
11.01.2023	524

Ref : Environmental (Protection) Rules, 2010 (Sixth Amendment)

	Particulate mater ($\mu\text{g}/\text{m}^3$)
Permissible limits for Fugitive Emissions	1200 $\mu\text{g}/\text{m}^3$


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Table No. 7

STATISTICAL AIR QUALITY DATA

Name of the Project : Ramanadurga Iron Ore Mine (ML No. 2141)													
Name of the Client : M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd													
Month : January, 2023													
Station Code : A - I, Dharmapura				A - II, Yeshwanthanagar				A - III, Sushila Nagar 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.	8	10	39	20	8	9	38	21	6	9	32	16	
10%	8	11	40	23	9	10	43	25	7	10	37	17	
25%	9	11	44	24	10	12	46	27	7	10	43	19	
50%	10	12	47	27	11	13	50	29	8	11	49	22	
75%	10	13	51	27	11	14	53	30	9	11	52	27	
98%	11	14	56	30	12	16	58	47	9	13	56	29	
Max.	11	14	56	30	12	16	58	50	9	13	56	29	
Avg.	10	12	47	26	11	13	49	30	8	11	47	23	
SD	1	1	6	3	1	2	7	8	1	1	8	5	
No. of obs	8				8				8				
Station Code : A - IV Sandur Town				A - V Core zone Within ML Area									
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}					
Min.	6	9	40	21	7	11	40	24					
10%	7	9	41	21	7	12	44	25					
25%	8	11	43	22	9	13	49	26					
50%	9	12	46	24	10	14	52	28					
75%	10	13	49	26	10	14	54	30					
98%	11	15	53	27	11	15	56	33					
Max.	11	15	53	27	11	15	56	33					
Avg.	9	12	46	24	9	14	51	28					
SD	2	2	4	2	1	1	5	3					
No. of obs	8				8								

M.R. Durga Prasad
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Table No. 8

WATER TEST REPORT

MES/WFTR/12/00

Name of the Project	: Ramanadurga Iron Ore Mine (ML No. 2141)
Name of the Client	: M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd
Month	: January, 2023
Date of sampling	: 06.01.2023
Date of Report	: 06.02.2023
Report No	: MES/WS/WRN/45
Ref:IS : 2296, 1982 Class C Norms (Stream Water Standards)	

Sl.No.	Parameters	Method of Testing	Limits For Stream Water Standards	Result	
				SW1	SW2
i	pH	IS:3025(Part-11)	6.5 to 8.5	8.36	8.27
ii	Dissolved Oxygen (as O ₂), mg/l, Min	IS:3025(Part-38)	4	5.4	5.3
iii	Biochemical Oxygen Demand (as O ₂), mg/l, Max	IS:3025(Part-44)	3	<2	<2
iv	Total Coliform (mpn/100ml), Max	IS:1622	5000	156	168
v	Colour (Hazen Units), Max	IS:3025(Part-4)	300	5	5
vi	Fluoride (as F),mg/l, Max	IS:3025(Part-60)	1.5	0.71	0.68
vii	Cadmium (as Cd), mg/l, Max	IS:3025(Part-41)	0.01	<0.002	<0.002
viii	Chloride (as Cl),mg/l, Max	IS:3025(Part-32)	600	280.0	290.0
ix	Chromium (as Cr ⁺⁶), mg/l, Max	IS:3025(Part-52)	0.05	<0.03	<0.03
x	Cyanides (as CN), mg/l, Max	IS:3025(Part-27)	0.05	<0.01	<0.01
xi	Total Dissolved Solids (mg/l), Max	IS:3025(Part-16)	1500	846	756
xii	Selenium (as Se), mg/l, Max	IS:3025(Part-56)	0.05	<0.005	<0.005
xiii	Sulphates as SO ₄ (mg/l), Max	IS:3025(Part-24)	400	68.0	67.5
xiv	Lead (as Pb) mg/l, Max	IS:3025(Part-47)	0.1	<0.005	<0.005
xv	Copper (as Cu),mg/l, Max	IS:3025(Part-42)	1.5	<0.01	<0.01
xvi	Arsenic as As (mg/l), Max	IS:3025(Part-37)	0.2	<0.002	<0.002
xvii	Iron (as Fe),mg/l, MAX	IS:3025(Part-53)	50	<0.05	<0.05
xviii	Phenolic compounds (as C ₆ H ₅ OH),mg/l, Max	IS:3025(Part-43)	0.005	<0.001	<0.001
xix	Zinc (as Zn),mg/l, Max	IS:3025(Part-49)	15	<0.005	<0.005
xx	Insecticides, mg/l, Max	APHA 21 st	Absent	NA	NA
xxi	Anionic detergents (as MBAS),mg/l, Max	Annex K of IS 13248	1	<0.1	<0.1
xxii	Oil and grease, mg/l, Max	IS:3025(Part-39)	0.1	<0.01	<0.01
xxiii	Nitrates (as NO ₃),mg/l, Max	IS:3025(Part-34)	50	17.5	14.6
xxiv	Alpha Emitters (µcurie/ml), Max	APHA 21 st	10 ⁻⁹	NA	NA
xxv	Beta Emitters (µcurie/ml), Max	APHA 21 st	10 ⁻⁸	NA	NA

SAMPLE TYPE :

Note : NA - Not Analysed

SW1 - Nari Halla Up Stream water

SW2 - Nari Halla Down Stream water

Samples Collected & Analysed by Mineral Engineering Services, Ballari

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Table No. 9

WATER TEST REPORT

MES/W/TR/11/00

Name of the Project		: Ramanadurga Iron Ore Mine (ML No. 2141)						
Name of the Client		: M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd						
Month		: January, 2023						
Date of sampling		: 06.01.2023						
Date of Report		: 06.02.2023						
Report No		: MES/WS/WRN/46						
Ref		: IS:10500-2012 Norms (Drinking Water Standards)						
Sl. No.	Parameters	Method of Testing	Desirable Limits	Permissible Limits	Result			
					GW1	GW2	GW3	GW4
i	Colour (Hazen Units), Max	IS:3025 (Part-4)	5	15	1	2	1	<1
ii	Odour	IS:3025 (Part-5)	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
iii	pH	IS:3025 (Part-11)	6.5 to 8.5	6.5 - 8.5	7.75	7.50	7.22	7.44
iv	Taste	IS:3025 (Part- 8)	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
v	Turbidity,NTU, Max	IS:3025 (Part-10)	1	5	4.3	4.0	2.5	4.5
vi	Total Dissolved Solids,mg/l, Max	IS:3025 (Part-16)	500	2000	716	1476	1116	46
vii	Aluminium (as Al), Max	IS:3025 (Part-55)	0.03	0.2	<0.01	<0.01	<0.01	<0.01
viii	Ammonia (as total Ammonia -N),mg/l, Max	IS:3025 (Part-34)	0.5	0.5	<0.1	<0.1	<0.1	<0.1
ix	Anionic Detergents (as MBAS),mg/l, Max	Annex K of Is:13428	0.2	1.0	<0.1	<0.1	<0.1	<0.1
x	Barium (as Ba), mg/l, Max	IS:15302 & APHA 21 st	0.7	0.7	<0.05	<0.05	<0.05	<0.05
xi	Boron (as B), mg/l, Max	IS:3025 (Part-57)	0.5	2.4	<0.1	<0.1	<0.1	<0.1
xii	Calcium (as Ca),mg/l, Max	IS:3025 (Part-40)	75	200	88	140	172	2
xiii	Chloramines (as Cl ₂), mg/l, Max	APHA 21 st	4.0	4.0	NA	NA	NA	NA
xiv	Chloride as Cl (mg/l),mg/l, Max	IS:3025 (Part-32)	250	1000	50	400	240	10
xv	Copper (as Cu),mg/l, Max	IS:3025 (Part-42)	0.05	1.5	<0.01	<0.01	<0.01	<0.01
xvi	Fluoride (as F),mg/l, Max	IS:3025 (Part-60)	1	1.5	0.46	0.21	1.28	<0.1
xvii	Residual, Free Chlorine,mg/l, Max	IS:3025 (Part-26)	0.2	1	<0.1	<0.1	<0.1	<0.1
xviii	Iron (as Fe),mg/l, Max	IS:3025 (Part-53)	1.0	1.0	<0.05	<0.05	<0.05	<0.05
xix	Magnesium (as Mg),mg/l, Max	IS:3025 (Part-46)	30	100	68.0	116.6	97.2	1.5
xx	Manganese (as Mn),mg/l, Max	IS:3025 (Part-59)	0.1	0.3	<0.03	<0.03	<0.03	<0.03
xxi	Mineral Oil,mg/l, Max	Clause 6 of IS 3025 (part -39)	1	1	<0.01	<0.1	<0.01	<0.01
xxii	Nitrates (as NO ₃),mg/l, Max	IS:3025 (Part-34)	45	45	35.0	17.2	42	8.0
xxiii	Phenolics (as C ₆ H ₅ OH),mg/l, Max	IS:3025 (Part-43)	0.001	0.002	<0.001	<0.001	<0.001	<0.001
xxiv	Selenium (as Se),mg/l, Max	IS:3025 (Part-56)	0.01	0.01	<0.005	<0.005	<0.005	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is:13428	0.1	0.1	<0.002	<0.002	<0.002	<0.002
xxvi	Sulphates (as SO ₄),mg/l, Max	IS:3025 (Part-24)	200	400	160.0	220.0	160	2.5
xxvii	Sulphide (as H ₂ S) , mg/l, Max	IS:3025 (Part-29)	0.05	0.05	<0.01	<0.01	<0.01	<0.01
xxviii	Alkalinity (as CaCO ₃) mg/l, Max	IS:3025 (Part-23)	200	600	430	470	520	24
xxix	Total Hardness (as CaCO ₃),mg/l, Max	IS:3025 (Part-21)	200	600	500	830	830	10
xxx	Zinc (as Zn),mg/l, Max	IS:3025 (Part-49)	5	15	<0.005	<0.005	<0.005	<0.005
xxxi	Cadmium (as Cd),mg/l, Max	IS:3025 (Part-41)	0.003	0.003	<0.002	<0.002	<0.002	<0.002
xxxii	Cyanide (as CN),mg/l, Max	IS:3025 (Part-27)	0.05	0.05	<0.01	<0.01	<0.01	<0.01
xxxiii	Lead (as Pb),mg/l, Max	IS:3025 (Part-47)	0.01	0.01	<0.005	<0.005	<0.005	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 st	0.07	0.07	NA	NA	NA	NA
xxxv	Mercury (as Hg),mg/l, Max	IS:3025 (Part-48)	0.001	0.001	<0.0005	<0.0005	<0.0005	<0.0005
xxxvi	Nickel (as Ni),mg/l, Max	IS:3025 (Part-54)	0.02	0.02	<0.01	<0.01	<0.01	<0.01
xxxvii	Pesticides (Total)	APHA 21 st	Absent	0.001	NA	NA	NA	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 st Edition	0.0005	0.0005	NA	NA	NA	NA
xxix	Polynuclear Aromatic Hydrocarbons (as PAH),mg/l, Max	APHA 21 st Edition	0.0001	0.0001	NA	NA	NA	NA
XL	Arsenic (as As),mg/l, Max	IS:3025 (Part-37)	0.01	0.01	<0.002	<0.002	<0.002	<0.002
XLi	Chromium (as Cr ⁶⁺),mg/l, Max	IS:3025 (Part-52)	0.05	0.05	<0.03	<0.03	<0.03	<0.03
XLii	Trihalomethanes,mg/l, Max	APHA 21 st	--	--	NA	NA	NA	NA
XLiii	Radioactive materials,Bq/l,mg/l	APHA 21 st	--	--	NA	NA	NA	NA
XLiv	Total Coliform (/100ml)	IS:1622	Absent	Absent	Absent	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent	Absent	Absent	Absent
SAMPLE CODE		: GW1 - Dharmapura village Bore well water		GW2 - Yeshwanthanagar village Bore well water				
		: GW3 - Sushilanagar village Bore well water		GW4 - Drinking water Near Mine Office				
Samples Collected & Analysed by Mineral Engineering Services, I NA - Not Analysed								

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HEAD OF LABORATORY



MINERAL ENGINEERING SERVICES

Recognised by GOI, MOEF&CC Under E(P)A 1986 Vide Gazette Notification
No. S.O. 857(E) dated 26.02.2018. Recognition Valid Upto 25.02.2023



Table No. 10

NOISE LEVEL DATA

MES/NOISE/FR/02/00

Name of the Client	: M/s. Sri. Kumaraswamy Mineral Exports Pvt. Ltd						
Name of the Project	: Ramanadurga Iron Ore Mine (ML No. 2141)						
Date of monitoring	: 06.01.2023						
Date of Report	: 06.02.2023						
Report No	: MES/NRN/109						
Code No.	Monitoring stations	Day			Night		
		L _{min}	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}
Bufferzone							
N1	Dharmapura	36.0	52.5	56.8	35.0	43.1	47.6
N2	Yeshwanthanagar	38.0	51.5	57.2	34.0	42.7	48.0
N3	Bavihalli village	36.0	52.0	58.0	34.0	41.8	46.0
Corezone							
N4	Core zone Near Mines office	36.5	48.7	55.7	36.0	42.2	46.3
N5	Loading Area	39.0	47.4	60.0	During operation		
N6	Dumping Area	41.0	53.1	65.0	During operation		
Permissible Limits of Ambient Noise Levels as per CPCB Guidelines							
Leq. Limit dB(A)							
		Day		Night			
Industrial areas		75		70			
Commerecial area		65		55			
Residential area		55		45			
Silence area		50		40			

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