The Sandur Manganese & Iron Ores Limited

(An ISO 9001:2015; ISO 14001:2015 and 45001:2018 certified company) CIN: L85110KA1954PLC000759; Website: www.sandurgroup.com

REGISTERED OFFICE

'SATYALAYA', No.266 Ward No.1, Palace Road Sandur - 583 119, Ballari District Karnataka, India

Tel: +91 8395 260301/283173-199

Fax: +91 8395 260473



CORPORATE OFFICE

'SANDUR HOUSE', No.9 Bellary Road, Sadashivanagar Bengaluru - 560 080 Kamataka, India Tel: +91 80 4152 0176 - 79 / 4547 3000

Fax: +91 80 4152 0182

Ref No: SMIORE/MINES/ENV/2024-25/2679/305

01 June 2024

To,
The Environmental Officer,
Karnataka State Pollution Control Board,
Ward No.25, 4th Main Road,
Kuvempu Nagar,
Ballari – 583104

Dear Sir,

Ref:

Sub: Submission of reports pertaining to monitoring of environmental parameters for the month of May 2024 in respect of Mining Lease No. 2679.

1. Environmental Clearance No. 110015/88/2006-IA.II(M) dated 24 January 2007.

2. Consent for Operation No. AW-337273 dated 10 April 2023.

With reference to the letters cited above, we are enclosing herewith environmental monitoring reports prepared after monitoring the stipulated environmental parameters for the month of May 2024 in respect of Mining Lease No. 2679 of The Sandur Manganese & Iron Ores Limited.

Kindly acknowledge the receipt of the reports.

Thank you,

for The Sandur Manganese & Iron Ores Limited,

Md. Abdul Saleem, Whole Time Director

& Company Secretary.

Encl: Monitoring Reports



ENVIRONMENTAL MONITORING REPORT

May, 2024

Project : Ramgad Manganese Ore Mine ML No. 2679

Ramgad Village, Sandur Taluk, Ballari Dist., Karnataka.

Lessee

The Sandur Manganes & Iron Ores Limited

ENVIRONMENTAL LABORATORY

(Unit of Mineral Engineering Services)

(Accredited by NABL &, MOEF&CC Under E(P) 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

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A1, Core Zone (ML Area)

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

		Colobora	Nite	Particula	ite Matter	
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), μg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m³)	PM _{2.5,} (μg/m³)	Carbon Monoxide* (CO), mg/m
08.05.2024	N/24/05/2-0095	9	10	41	25	0.45
09.05.2024	N/24/05/2-0156	7	11	58	35	0.33
15.05.2024	N/24/05/4-0094	12	13	65	38	0.28
16.05.2024	N/24/05/4-0129	10	15	44	18	0.30
22.05,2024	N/24/05/4-0336	11	14	33	21	0.44
23.05.2024	N/24/05/4-0373	8	15	48	25	0.36
29.05.2024	N/24/05/5-0166	7	13	52	30	0.48
30.05.2024	N/24/05/5-0189	13	14	60	35	0.30
Limits for Inc Residential, Rural		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



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TEST REPORT

Table No.2

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A2, Core Zone (Myadara Banda Block)

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

		Salahaa	N124	Particula	te Matter	192430120000
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m³)	PM _{2.5,} (μg/m ³)	Carbon Monoxide* (CO), mg/m³ 0.45 0.31 0.41 0.35 0.28
08.05.2024	N/24/05/2-0097	11	13	43	25	0.45
09.05.2024	N/24/05/2-0158	9	11	52	28	0.31
15.05.2024	N/24/05/4-0096	7	9	36	19	0.41
16.05.2024	N/24/05/4-0131	10	11	45	25	0.35
22.05.2024	N/24/05/4-0338	7	9	30	18	0.28
23.05.2024	N/24/05/4-0375	9	13	35	22	0.28
29.05.2024	N/24/05/5-0168	11	12	45	28	0.30
30.05.2024	N/24/05/5-0191	10	11	53	30	0.36
Limits for Inc Residential, Rural		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR

Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



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TEST REPORT

Table No.3

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A3, Core Zone (Governor Point)

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

		Chi	NYSA	Particula	te Matter	
Date of Sampling	Lab Code	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)	Carbon Monoxide* (CO), mg/m
08.05.2024	N/24/05/2-0098	11	13	40	22	0.21
09.05.2024	N/24/05/2-0159	6	9	39	21	0.45
15.05.2024	N/24/05/4-0097	12	13	42	22	0.25
16.05.2024	N/24/05/4-0132	10	15	57	35	0.31
22.05.2024	N/24/05/4-0339	11	12	51	28	0.36
23.05.2024	N/24/05/4-0376	9	10	55	28	0.42
29.05.2024	N/24/05/5-0169	7	9	42	26	0.31
30.05.2024	N/24/05/5-0192	9	11	55	30	0.26
Limits for Inc Residential, Rural		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR

Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory





(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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TEST REPORT

Table No.4

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A4, Core Zone (Neerlabi)

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

		6-1-1-	N114	Particula	te Matter	
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), μg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m³)	PM _{2.5,} (μg/m ³)	Carbon Monoxide* (CO), mg/m ²
08.05.2024	N/24/05/2-0099	7	11	37	19	0.25
09.05.2024	N/24/05/2-0160	6	10	55	32	0.43
15.05.2024	N/24/05/4-0098	10	13	57	28	0.28
16.05.2024	N/24/05/4-0133	9	11	48	21	0.33
22.05.2024	N/24/05/4-0340	7	10	44	25	0.26
23.05.2024	N/24/05/4-0377	11	13	37	20	0.23
29.05.2024	N/24/05/5-0170	10	15	47	24	0.45
30.05.2024	N/24/05/5-0193	12	14	58	33	0.25
Limits for Inc Residential, Rural a		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone: 080-25432969 Tel/fax: 25432968. E-mail: mesbng@gmail.com, www.envtest.in





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TEST REPORT

Table No.5

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A5, Ramghad village

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

				Particula	ite Matter	o reconstruct
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m³)	PM _{2.5,} (μg/m³)	Carbon Monoxide* (CO), mg/m ²
08.05.2024	N/24/05/2-0100	11	12	63	33	0.32
09.05.2024	N/24/05/2-0161	9	11	45	26	0.26
15.05.2024	N/24/05/4-0099	12	16	52	26	0.46
16.05.2024	N/24/05/4-0134	14	11	55	29	0.38
22.05.2024	N/24/05/4-0341	11	14	40	23	0.41
23.05.2024	N/24/05/4-0378	13	18	38	18	0.33
29.05.2024	N/24/05/5-0171	10	15	44	25	0.36
30.05.2024	N/24/05/5-0194	9	11	50	27	0.25
Limits for Inc Residential, Rural :		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

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TEST REPORT

Table No.6

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A6, Dharmapura village

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

			uwareere.	Particula	te Matter	Carbon Monoxide* (CO), mg/m³ 0.44 0.33 0.25
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), μg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m³)	PM _{2.5,} (μg/m³)	
08.05.2024	N/24/05/2-0101	9	12	55	29	0.44
09.05.2024	N/24/05/2-0162	10	11	48	25	0.33
15.05.2024	N/24/05/4-0100	7	9	56	29	0.25
16.05.2024	N/24/05/4-0135	11	14	51	26	0.28
22.05.2024	N/24/05/4-0342	9	11	38	20	0.36
23.05.2024	N/24/05/4-0379	12	18	46	25	0.31
29.05.2024	N/24/05/5-0172	11	15	52	27	0.28
30.05.2024	N/24/05/5-0195	10	13	54	30	0.25
Limits for Inc Residential, Rural a	PRINCIPLE SERVICE STREET OF THE PRINCIPLE SERVICE OF	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

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TEST REPORT

Table No.7

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A7, Garaga village

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

			-	Particula	te Matter	
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), μg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m ³)	PM _{2.5,} (μg/m³)	Carbon Monoxide* (CO), mg/m³ 0.33 0.21 0.23 0.21 0.25 0.42 0.35
08.05.2024	N/24/05/2-0102	9	11	44	25	0.33
09.05.2024	N/24/05/2-0163	10	12	50	26	0.21
15.05.2024	N/24/05/4-0101	7	10	44	24	0.23
16.05.2024	N/24/05/4-0136	10	11	38	18	0.21
22.05.2024	N/24/05/4-0343	9	10	41	23	0.25
23.05.2024	N/24/05/4-0380	12	16	38	20	0.42
29.05.2024	N/24/05/5-0173	10	12	54	27	0.35
30.05.2024	N/24/05/5-0196	9	10	44	22	0.22
Limits for Inc Residential, Rural a	Not all the first that the first the reservation is a reco	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



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TEST REPORT

Table No.8

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A8, Yeswanthanagar

Duration

24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

			.compositions	Particula	te Matter	ne ne
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), μg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m³)	PM _{2.5,} (μg/m³)	Carbon Monoxide* (CO), mg/m³ 0.42 0.44 0.42 0.26 0.36 0.33 0.45
10.05.2024	N/24/05/2-0202	12	10	56	27	0.42
11.05.2024	N/24/05/3-0021	11	18	41	22	0.44
13.05.2024	N/24/05/4-0005	8	10	48	25	0.42
14.05.2024	N/24/05/4-0050	9	13	42	19	0.26
24.05.2024	N/24/05/4-0405	10	15	50	29	0.36
25.04.2024	N/24/05/5-0005	10	12	35	25	0.33
27.05.2024	N/24/05/5-0050	12	22	45	27	0.45
28.05.2024	N/24/05/5-0109	11	12	50	28	0.25
Limits for Inc Residential, Rural a		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone: 080-25432969 Tel/fax: 25432968. E-mail: mesbng@gmail.com, www.envtest.in



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TEST REPORT

Table No.9

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A9, Subbarayanahalli

Duration

24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

				Particula	ite Matter	or restance of
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), μg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m ³)	PM _{2.5,} (μg/m³)	Carbon Monoxide* (CO), mg/m ³
08.05.2024	N/24/05/2-0094	7	11	63	38	0.31
09.05.2024	N/24/05/2-0152	10	13	57	23	0.36
15.05.2024	N/24/05/4-0088	9	10	35	20	0.41
16.05.2024	N/24/05/4-0125	13	11	44	24	0.45
22.05.2024	N/24/05/4-0335	11	13	46	26	0.39
23.05.2024	N/24/05/4-0369	9	15	40	19	0.26
29.05.2024	N/24/05/5-0165	10	16	43	22	0.32
30.05.2024	N/24/05/5-0188	8	18	58	30	0.33
Limits for Inc Residential, Rural	10 PM	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.

Phone: 080-25432969 Tel/fax: 25432968. E-mail: mesbng@gmail.com, www.envtest.in



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TEST REPORT

Table No.10

AMBIENT AIR QUALITY

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code

: A10, Siddapura village

Duration

: 24 Hrs

Issue date

: 01.06.2024

Reference IS 5182 & Lab SOP

11				Particula	ite Matter	
Date of Sampling	Lab Code	Sulphur Dioxide (SO ₂), μg/m ³	Nitrogen Dioxide (NO ₂), μg/m ³	PM _{10,} (μg/m³)	PM _{2.5,} (μg/m³)	Carbon Monoxide* (CO), mg/m
08.05.2024	N/24/05/2-0096	9	12	53	29	0.42
09.05.2024	N/24/05/2-0157	7	9	49	26	0.51
15.05.2024	N/24/05/4-0095	10	12	59	35	0.34
16.05.2024	N/24/05/4-0130	11	16	55	29	42.00
22.05.2024	N/24/05/4-0337	9	11	47	24	0.25
23.05.2024	N/24/05/4-0374	7	9	30	18	0.27
29.05.2024	N/24/05/5-0167	10	11	45	28	0.30
30.05.2024	N/24/05/5-0190	6	9	56	32	0.26
Limits for Inc Residential, Rural a	**************************************	80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	2 8 Hr

ARSHIYA HOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



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TEST REPORT

Table No. 11

Fugitive Emission

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory

(Unit of Mineral Engineering Services)

Duration

: 08 Hrs

Issue Date

: 01.06.2024

Station at & Code	Date of sample	Lab Code	Particulate mater (μg/m³)
FA1, Loading point	30.05.2024	N/24/05/5-0197	285
FA2, Dumping point	30.05.2024	N/24/05/5-0198	356
FA3, Haulage Road	30.05.2024	N/24/05/5-0199	435
FA4, Stack Yard	30.05.2024	N/24/05/5-0200	256
FA5, Drilling Point	30.05.2024	N/24/05/5-0201	396
FA6, Waste Dumping Point	30.05.2024	N/24/05/5-0202	257

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

Particulate mater (µg/m³)

Permissible limits for Fugitive Emissions

600 µg/m³

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



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TEST REPORT

Table No. 12

Analysis Report of Dust Fall Measurement

1	Name of the Client	The Sandur Manganese & Iron Ores Limited
2	Name of the Project	Mining Lease No. 2679
3	Month	01.05.2024 to 31.05.2024
4	Sample Type	Total Dust Fall Rate
5	Duration of Monitoring	One Month
6	Issue Date	01.06.2024

Result

Code	Location	Result	unit	Reference Method
DF1	Mine Office Area	0.022	g/m ² month	IS 5182 (Part 01) : 2006
DF2	Near Crusher Area	0.026	g/m² month	IS 5182 (Part 01) : 2006

ARSHIYA KOUSAR
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



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TEST REPORT

Table No. 13

AMBIENT NOISE LEVEL DATA

Report No : M00124056

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Date of monitoring

: 29.05.2024

Issue Date

: 01.06.2024

Code No.	Monitoring stations		Day		Night			
		L _{min}	L _{eq}	L max	L _{min}	L _{eq}	L max	
	Corezone		1721					
N1	Core zone ML Area	38.6	50.1	56.1	34.0	43.4	46.0	
N2	Myadara Banda Block	42.3	52.0	59.0	34.8	43.6	48.3	
N3	Goerner Point	40.0	54.1	60.0	32.0	40.0	43.6	
N4	Neerlabbi	38.0	49.8	57.0	34.0	40.2	45.3	
	Buffer zone							
N5	Ramgad village	38.0	54.5	59.0	34.0	42.1	48.0	
N6	Dharmapura	37.5	52.6	60.0	34.0	42.9	46.0	
N7	Garaga village	38.0	45.1	48.0	34.0	40.2	43.6	
N8	Yeshwanthanagar	39.0	53.8	63.0	34.0	42.6	49.0	
N9	Subbarayanahalli	40.0	52.4	58.3	34.0	43.6	48.0	
N10	Siddapura	36.0	54.5	62.0	36.0	44.0	48.3	

Permissible Limits of Ambient

Noise Levels as per CPCB Guidelines

Leq. Limit dB(A)
Day Night

> ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

Report No: M00224056



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 23.05.2025

TEST REPORT

SOURCE NOISE LEVEL DATA

Name of the Client : The Sandur Manganese & Iron Ores Limited

Name of the Project : Mining LeaseNo. 2679

Sample Collected by : EnvironmentalLaboratory

(Unit of Mineral Engineering Services)

Date of monitoring : 30.05.2024

Issue Date : 01.06.2024

Issue	Date	:01.06.	2024				
Code	Monitoring stations	Day			Damanka		
No.		L _{min}	L _{eq}	L max	Remarks		
	Source						
N1	Loading Point	41.0	73.1	80.0	During operation		
N2	Dumping Point	43.0	70.0	77.0	During operation		
N3	Haulage Road	45.0	73.2	83.0	During operation		
	Heavy Earth Moving Machineries						
N4	Wheel Loader	44.0	79.3	85.0	During operation in side of the cabin		
IN '1		52.0	75.0	78.0	During operation 10mts outside of the cabin		
N5	Tata Hitachi 200LC	48.0	75.5	82.0	During operation in side of the cabin		
149		43.0	73.5	76.0	During operation 10mts outside of the cabin		

Permissible	limits as	per ILO	Code of	Practice
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Permissible Limits of Ambient

Joise Levels as per CPCB Guidelines

For Unprotected ear - 8 hrs working shift Noise Levels as per CPCB Guidelines

Warning limit - 85 dB(A)

Danger limit - 90 dB(A)

Worker not to be exposed for more than 115 dB(A) Industrial areas

Leq. Limit dB(A)

Day

Night

With ear protection - Commercial area 65 55 130 dB(A) 'Impulse' or 120 dB(A) 'Fast' Residential area 55 45

No entry when noise level exceeds 140 dB(A)

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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TEST REPORT

Table No.14

Name of the Client

: The Sandur Manganese & Iron Ores Limited

Name of the Project

: Mining Lease No. 2679

Sample Collected by

: Environmental Laboratory (Unit of Mineral Engineering Services)

Particulars of sample collected

: SW1 - Ragavapura kere water, SW2 - Dhananayakana kere water

: SW3 - Narihalla Upstream water, SW4 - Narihalla Downstream water

Date of sample collection

Ref:IS: 2296, 1982 Class C Norms (Stream Water Standards)

	Sample Code	SW1	SW2	SW3	SW4		
SI.No.	Lab Code				-	Limits For Stream Water Standards	Method of Testing
300	Parameters		3 - 1	- 1	5 3111	- Action conventions	
1000	pH		-		1	6.5 to 8.5	IS:3025(Part-11)2022
2	Colour (Hazen Units), Max				Mar Wa	300	IS:3025(Part-4)2021
3	Odour				Y.	18条件	IS:3025 (P-5) 2018
4	Total Dissolved Solids (mg/l), Max					1500	IS:3025(Part-16)2023
5	Total Suspended Solids, mg/l				5 114		IS 3025 (P-17) 2022
6	Dissolved Oxygen (as O ₂), mg/l, Max					Min 4	IS:3025(Part-38)1989RA 2019
7	Biochemical Oxygen Demand (as O ₂), mg/l					3	IS:3025(P-44) 2014
8	Oil & Greease, mg/l		4.5			0.1	IS:3025(Part 39)2021
9	Total Hardness (as CaCO ₃),mg/l,Max	Dry	Dry	Dry	Dry	12	IS:3025 (P-21):2009 RA 2019
10	Sulphates as SO ₄ (mg/l), Max					400	IS:3025(P-24)Sec 1 2022
11	Phosphates (as P), mg/l					12.	IS 3025 (P-31) Sec 1 2022
12	Chloride (as Cl),mg/l, Max		-			600	IS:3025(Part-32) ;1988RA2019
13	Fluoride (as F),mg/l, Max			8		1.5	APHA 23rd Edition 4500F
14	Sulphide (as H ₂ S) , mg/l, Max			1		-	IS:3025 (P-29):1986 RA 2019
15	Boron (as B), mg/l, Max					100	IS:3025 (Part-57)2021
16	Iron (as Fe),mg/l, Max	- 1				50	IS:3025(P-2) 2019
17	Percent of Sodium (%)					*	IS 11624 .2009
18	Residual Sodium Carbonate (meq/l)		V				IS:2488 (P-5) 1976
19	Total Coliform, MPN/100ml					5000	IS:1622:1981

"END OF REPORT"

BINU MANI T.M. - Microbiology

Govt. Analyst / Authorised Signatory

ARSHIYA KOUSAR Dy. T.M. - Chemical

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TEST REPORT

Table No. 15

Stack Monitoring Report

Report No. M011224053

Name of the Client: The Sandur Manganese & Iron Ores Limited

Name of the Mine : RAMGAD MANGANESE & IRON ORE MINE (ML NO. 2679)

Location

: Mining Lease No. 2679

Stack ID & Capcity

: DG Set 35 KVA Ramgad-KK1 Mines

Sample Collected by

: Environmental Laboratory

(Unit of Mineral Engineering Services)

Date of Collection

: 16.05.2024

Particulars of Sample

Collected

: Emissions from stack collected through stack

sample VSS1

Date of Sample Receipt

: 18.05.2024

Issue date

: 27.05.2024

issue (aate	. 27.05.2024		
		STACK	DETAILS	
1	Fuel Used	Diesel		
2	AmbientTemperature	(°C)		33
3	Stack Temperature (°C	;)		116
4	Velocity (m/s)	V		5.9
5	Stack diameter (M)			0.15
6	Quanitity of flue Gas I (Nm ³ /hr)	271		
7	Sample Condition Who	Satisfactory		
8	Model of the Equipme	Vayubodhan Stack Sampler VSS1		
9	Serial No. of the Equip	ment		338 DTH 14
10	Calibration done on ar	Done on 19.11.2022 and Due on 18.11.2024		
11	Sampling and Analysis	s Method		IS 11255 & flue gas analyser
	W.	Pollutional Par	ameters (Resul	t)
SI.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.140	<0.2
2	со	g/Kw-hr	0.09	<3.5
3	Nox +HC	g/Kw-hr	0.11	<4.0

as per KSPCB Report Status - The measured values for the above parameters for INFERENCE those standards have been specified were observed to be within the said standards

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory



(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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TEST REPORT

Table No. 16

Stack Monitoring Report

Report No. M011324053

Name of the Client: The Sandur Manganese & Iron Ores Limited

Name of the Mine : RAMGAD MANGANESE & IRON ORE MINE (ML NO. 2679)

Location

: Mining Lease No. 2679

Stack ID & Capcity

: DG Set 20 KVA Ramgad Mines

Sample Collected by

: Environmental Laboratory

(Unit of Mineral Engineering Services)

Date of Collection

: 16.05.2024

Particulars of Sample

Collected

: Emissions from stack collected through stack

sample VSS1

Date of Sample Receipt

: 18.05.2024

Issue date

27.05.2024

issue (date	: 27.05.2024		
		STACK	DETAILS	
1	Fuel Used	Diesel		
2	AmbientTemperature	(°C)		33
3	Stack Temperature (°C	;)		138
4	Velocity (m/s)			3.73
5	Stack diameter (M)	102		0.15
6	Quanitity of flue Gas I (Nm ³ /hr)	162		
7	Sample Condition Whe	Satisfactory		
8	Model of the Equipme	Vayubodhan Stack Sampler VSS1		
9	Serial No. of the Equip	ment		338 DTH 14
10	Calibration done on ar	Done on 19.11.2022 and Due on 18.11.2024		
11	Sampling and Analysis	s Method		IS 11255 & flue gas analyser
		Pollutional Par	ameters (Resul	1)
SI.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.130	<0.2
2	co	g/Kw-hr	0.06	<3.5
3	Nox +HC	g/Kw-hr	0.17	<4.0

INFERENCE Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

ARSHIYA KOUSAR Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory