O/C

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
Karnataka, India
Tel: +91 80 4152 0176 - 79 / 4547 3000
Fax: +91 80 4152 0182

Ref No: SMIORE/PLANT/ENV/MR/2023-24/82

07th Aug 2023

To,
The Environmental Officer,
Regional Office & Zonal office
Karnataka State Pollution Control Board
Sri Sai Sharan plaza, No. 71/A, 2nd floor,
Dam road, Hosapete- 583203, Vijayanagar District.

Subject: Submission of monthly monitoring report for the month of **July-2023.**

Reference: 1) CFO No. AW-329576 PCB ID 29470 Dated 02.02.2022
2) Amendment CFO No. AW-335581 PCB ID 29470 Dated 17.01.2023

Dear Sir,

With reference to the above subject, herewith we are submitting the environmental monitoring report of our plant for the month of **July-2023** for your kind information.

Kindly acknowledge receipt of the same.

Thanking you,

The Sandur Manganese & Iron Ores Limited,

ಸ್ವೀಕೃತಿ
ಕ.ರಾ.ಮಾ.ನಿ. ಮಂಡಳಿ
ಪ್ರಾದೇಶಿಕ ಕಛೇರಿ ವಿಜಯನಗರ ಹೊಸಪೇಟೆ
ಸಂಖ್ಯೆ/ದಿನಾಂಕ: 7/08/2023 ಸಹಿ.

Authorized Signatory

MINES OFFICE: Deogiri - 583112, Sandur Taluk, Ballari District
Tel: +91 8395 271025 / 28 / 29 / 40; Fax: +91 8395 271066
PLANT OFFICE: Metal & Ferroalloy Plant, Vyasankere, Mariyammanahalli – 583 222, Hosapete Taluk, Ballari District
Tel: +91 8394 244450 / 244335

MSV Analytical Laboratories

Recognition by MoEF under Environment (Protection) Act, 1986 & Accredited by NABL

(Certified by ISO 14001:2015, ISO 45001:2018, ISO 9001:2015, ISO 22000:2018)

C.M.C Ward No 18 & C.T.C W.No.16 T.S No. 695/A/32/B1, Block No 19 (1st & 2nd Floor)

Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	03.07.2023
6.	**Date of Sample Receipt**	:	04.07.2023
7.	**Analysis Starting Date**	:	04.07.2023
8.	**Analysis Completion Date**	:	07.07.2023
9.	**Report Issue Date**	:	08.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000003578F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			5475	5476	5477			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	53.4	55.8	50.1	µg / m³	53.1	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	25.1	27.6	21.6	µg / m³	24.8	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	7.6	9.7	6.7	µg / m³	8.0	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	13.1	14.8	9.9	µg / m³	12.6	80
5	Ozone as O_3	IS 5182(part-9):2019	10.4	11.2	9.2	µg / m³	10.27	100
6	Lead	IS-5182(Part-22):2019	0.030	0.032	0.028	µg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.40	0.44	0.39	mg / m³	0.41	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.21	1.24	1.20	µg / m³	1.22	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

"END OF REPORT"

Note: 1. The results listed only to the tested samples & applicable parameters.
2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary jurisdiction only.
5. Sampling is not done by us unless otherwise specified.

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 08392-255169,

E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	Name and Address of Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Name of the location	:	Smiore Colony
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
4.	Particulars of the sampling Equipments	:	Sample collected with RDS APM460 and FDS GTI-131
5.	Date of Monitoring	:	03.07.2023
6.	Date of Sample Receipt	:	04.07.2023
7.	Analysis Starting Date	:	04.07.2023
8.	Analysis Completion Date	:	07.07.2023
9.	Report Issue Date	:	08.07.2023
10.	Sampling Protocol	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/0976**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1788	1789	1790			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	03.07.2023
6.	**Date of Sample Receipt**	:	04.07.2023
7.	**Analysis Starting Date**	:	04.07.2023
8.	**Analysis Completion Date**	:	07.07.2023
9.	**Report Issue Date**	:	08.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000003579F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			5478	5479	5480			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	52.8	55.1	50.3	µg / m³	52.7	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	14.1	16.2	11.2	µg / m³	13.8	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	5.6	7.6	4.6	µg / m³	5.9	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	9.9	13.0	8.7	µg / m³	10.5	80
5	Ozone as O_3	IS 5182(part-9):2019	9.1	10.2	8.1	µg / m³	9.13	100
6	Lead	IS-5182(Part-22):2019	0.026	0.029	0.024	µg / m³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.25	0.20	mg / m³	0.22	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.30	1.35	1.28	µg / m³	1.31	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-- END OF REPORT --

Note: 1. The results listed only to the tested samples & applicable parameters.
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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	03.07.2023
6.	**Date of Sample Receipt**	:	04.07.2023
7.	**Analysis Starting Date**	:	04.07.2023
8.	**Analysis Completion Date**	:	07.07.2023
9.	**Report Issue Date**	:	08.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/0977**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1791	1792	1793			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

:- END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	03.07.2023
6.	**Date of Sample Receipt**	:	04.07.2023
7.	**Analysis Starting Date**	:	04.07.2023
8.	**Analysis Completion Date**	:	07.07.2023
9.	**Report Issue Date**	:	08.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000003580F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			5481	5482	5483			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	54.8	57.1	51.6	µg / m³	54.5	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	19.1	22.3	17.8	µg / m³	19.7	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-	6.7	8.6	5.6	µg / m³	7.0	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	13.1	14.8	11.8	µg / m³	13.2	80
5	Ozone as O_3	IS 5182(part-9):2019	8.2	9.1	8.0	µg / m³	8.43	100
6	Lead	IS-5182(Part-	0.018	0.021	0.016	µg / m³	0.018	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.28	0.21	mg / m³	0.24	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.30	1.35	1.24	µg / m³	1.30	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Channa Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note. 1. The results listed only to the tested samples & applicable parameters.

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	03.07.2023
6.	**Date of Sample Receipt**	:	04.07.2023
7.	**Analysis Starting Date**	:	04.07.2023
8.	**Analysis Completion Date**	:	07.07.2023
9.	**Report Issue Date**	:	08.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/0978**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1794	1795	1796			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	03.07.2023
6.	**Date of Sample Receipt**	:	04.07.2023
7.	**Analysis Starting Date**	:	04.07.2023
8.	**Analysis Completion Date**	:	07.07.2023
9.	**Report Issue Date**	:	08.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000003581F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			5484	5485	5486			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	53.1	55.8	51.9	µg / m³	53.6	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	13.2	15.1	11.8	µg / m³	13.4	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-	8.6	10.9	7.7	µg / m³	9.1	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	11.8	13.8	9.5	µg / m³	11.7	80
5	Ozone as O_3	IS 5182(part-9):2019	7.2	8.4	7.0	µg / m³	7.53	100
6	Lead	IS-5182(Part-22):2019	<0.01	<0.01	<0.01	µg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.31	0.27	mg / m³	0.29	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	<0.01	<0.01	<0.01	µg / m³	<0.01	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note. 1. The results listed only to the tested samples & applicable parameters.
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5. Sampling is not done by us unless otherwise specified.

MSV Analytical Laboratories

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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	03.07.2023
6.	**Date of Sample Receipt**	:	04.07.2023
7.	**Analysis Starting Date**	:	04.07.2023
8.	**Analysis Completion Date**	:	07.07.2023
9.	**Report Issue Date**	:	08.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/0979**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			1797	1798	1799			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

: END OF REPORT :

Note : 1. The results listed only to the tested samples & applicable parameters,
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Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004061F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6288	6289	6290			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	57.3	56.4	55.2	µg / m³	56.3	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	28.3	27.8	26.3	µg / m³	27.5	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.5	9.5	8.3	µg / m³	9.4	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	16.8	16	7.1	µg / m³	13.3	80
5	Ozone as O_3	IS 5182(part-9):2019	12.3	12.1	11.9	µg / m³	12.10	100
6	Lead	IS-5182(Part-22):2019	0.033	0.031	0.029	µg / m³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.42	0.39	0.37	mg / m³	0.39	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.33	1.31	1.29	µg / m³	1.31	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT

Note: 1. The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1092**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2000	2001	2002			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT :-

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004062F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6291	6292	6293			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	56.2	55.6	54.3	µg / m³	55.4	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	21.3	20.8	19.8	µg / m³	20.6	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	11.1	10.2	9.5	µg / m³	10.3	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	15	13.8	11.9	µg / m³	13.6	80
5	Ozone as O_3	IS 5182(part-9):2019	8.1	7.6	7.2	µg / m³	7.63	100
6	Lead	IS-5182(Part-22):2019	0.032	0.022	0.028	µg / m³	0.027	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.28	0.25	mg / m³	0.28	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.40	1.36	1.32	µg / m³	1.36	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT:-

Note: 1.The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1093**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2003	2004	2005			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-: END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004063F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6294	6295	6296			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	53.9	52.3	51.4	µg / m³	52.5	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	19.4	18.4	17.3	µg / m³	18.4	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-	12.1	10.5	10.2	µg / m³	10.9	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	17.2	16.1	14.2	µg / m³	15.8	80
5	Ozone as O_3	IS 5182(part-9):2019	8.2	7.9	7.7	µg / m³	7.93	100
6	Lead	IS-5182(Part-	<0.01	<0.01	<0.01	µg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.26	0.24	mg / m³	0.26	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	<0.01	<0.01	<0.01	µg / m³	<0.01	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual:	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-: END OF REPORT:-

MSV ANALYTICAL LABORATORIES BELLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters.
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1094**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2006	2007	2008			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

: END OF REPORT :

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004064F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6297	6298	6299			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	55.4	57.8	54.3	µg / m³	55.8	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	26.2	28.6	24.7	µg / m³	26.5	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	8.6	10.4	6.1	µg / m³	8.4	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	14.8	18.4	13.1	µg / m³	15.4	80
5	Ozone as O_3	IS 5182(part-9):2019	12.1	11.9	11.7	µg / m³	11.90	100
6	Lead	IS-5182(Part-22):2019	0.031	0.029	0.027	µg / m³	0.029	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.40	0.39	0.35	mg / m³	0.38	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	<0.01	<0.01	<0.01	µg / m³	<0.01	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

MSV ANALYTICAL LABORATORIES BALLARI

: END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters.
2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary jurisdiction only.
5. Sampling is not done by us unless otherwise specified.

MSV Analytical Laboratories

Recognition by MoEF under Environment (Protection) Act, 1986

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	07.07.2023
6.	**Date of Sample Receipt**	:	08.07.2023
7.	**Analysis Starting Date**	:	08.07.2023
8.	**Analysis Completion Date**	:	12.07.2023
9.	**Report Issue Date**	:	13.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1095**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2009	2010	2011			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-:END OF REPORT:-

Authorized Signatory

B.Channa Lingana Gouda

Chief executive of the laboratory

Note : 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004348F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6834	6835	6836			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	51.5	58.7	50.4	µg / m³	53.5	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	27.2	24.9	23.1	µg / m³	25.1	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	9.5	8.2	7.4	µg / m³	8.4	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	15.7	17.6	12.9	µg / m³	15.4	80
5	Ozone as O_3	IS 5182(part-9):2019	11.7	13.8	10.9	µg / m³	12.1	100
6	Lead	IS-5182(Part-22):2019	0.030	0.033	0.028	µg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.40	0.37	0.32	mg / m³	0.36	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.30	1.32	1.27	µg / m³	1.30	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-: END OF REPORT:-

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

Note. 1.The results listed only to the tested samples & applicable parameters.

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1191**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2254	2255	2256			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

:END OF REPORT:

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004349F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6837	6838	6839			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	55.7	53.7	52.1	µg / m³	53.8	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	26.7	22.8	17.1	µg / m³	22.2	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.4	13.4	9.2	µg / m³	11.0	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	17	15.9	12.7	µg / m³	15.2	80
5	Ozone as O_3	IS 5182(part-9):2019	9.4	7.2	6.3	µg / m³	7.6	100
6	Lead	IS-5182(Part-22):2019	0.030	0.024	0.026	µg / m³	0.027	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.26	0.23	mg / m³	0.27	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.32	1.34	1.30	µg / m³	1.32	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

Note: 1.The results listed only to the tested samples & applicable parameters.

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1192**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2257	2258	2259			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-:END OF REPORT:-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004350F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6840	6841	6842			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	54.8	53.3	50.7	µg / m³	52.9	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	18.3	16.1	16.2	µg / m³	16.9	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	11.5	13.1	10.9	µg / m³	11.8	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	16.5	14.8	13.4	µg / m³	14.9	80
5	Ozone as O_3	IS 5182(part-9):2019	9.7	10.9	7.1	µg / m³	9.2	100
6	Lead	IS-5182(Part-22):2019	<0.01	<0.01	<0.01	µg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.25	0.27	0.22	mg / m³	0.25	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	<0.01	<0.01	<0.01	µg / m³	<0.01	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

MSV ANALYTICAL LABORATORIES BALLARI

:- END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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MSV Analytical Laboratories

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1193**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2260	2261	2262			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORY BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.

MSV Analytical Laboratories

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004351F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			6843	6844	6845			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	50.7	56.9	49.3	µg / m³	52.3	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	27.5	26.8	23.9	µg / m³	26.1	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	9.5	11.4	7.2	µg / m³	9.4	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	13.7	17.6	12.3	µg / m³	14.5	80
5	Ozone as O_3	IS 5182(part-9):2019	11.3	13.8	10.8	µg / m³	12.0	100
6	Lead	IS-5182(Part-22):2019	0.030	0.028	0.026	µg / m³	0.028	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.43	0.38	0.34	mg / m³	0.38	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	<0.01	<0.01	<0.01	µg / m³	<0.01	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-: END OF REPORT :-

Authorized Signatory
B.Chinna Lingana Gouda
Chief executive of the laboratory

Note: 1.The results listed only to the tested samples & applicable parameters.
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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM460 and FDS GTI-131
5.	**Date of Monitoring**	:	11.07.2023
6.	**Date of Sample Receipt**	:	12.07.2023
7.	**Analysis Starting Date**	:	12.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Report Issue Date**	:	15.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1194**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2263	2264	2265			
11	Benzene as C_6H_6	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT

Note : 1. The results listed only to the tested samples & applicable parameters,
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Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004499F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7065	7066	7067			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	49.3	50.3	51.2	µg / m³	50.3	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	25.4	28.2	21.5	µg / m³	25.0	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	8.5	14.3	6.4	µg / m³	9.7	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	18.1	22.9	16.1	µg / m³	19.0	80
5	Ozone as O_3	IS 5182(part-9):2019	9.7	9.6	9.2	µg / m³	9.5	100
6	Lead	IS-5182(Part-22):2019	0.020	0.018	0.016	µg / m³	0.018	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.47	0.48	0.44	mg / m³	0.46	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.12	1.08	1.06	µg / m³	1.13	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chenna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

:END OF REPORT:-

Note: 1. The results listed only to the tested samples & applicable parameters.
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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1244**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2322	2323	2324			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004500F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7068	7069	7070			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	60.3	64.5	58.4	µg / m³	61.1	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	20.7	19.1	18.2	µg / m³	19.3	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	12.5	13.6	10.4	µg / m³	12.0	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	18.4	18.9	16.6	µg / m³	17.5	80
5	Ozone as O_3	IS 5182(part-9):2019	11.1	8.1	9.3	µg / m³	9.5	100
6	Lead	IS-5182(Part-22):2019	0.033	0.029	0.027	µg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.28	0.29	mg / m³	0.28	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.82	1.80	1.77	µg / m³	1.80	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-- END OF REPORT --

MSV ANALYTICAL LABORATORIES BALLARI

Note. 1. The results listed only to the tested samples & applicable parameters.
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1245**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2325	2326	2327			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

--END OF REPORT--

MSV ANALYTICAL LABORATORIES * BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004501F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7071	7072	7073			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	57.3	61.3	53.6	µg / m³	57.4	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	18.4	22.4	16.1	µg / m³	19.0	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	9.6	13.2	8.6	µg / m³	10.5	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	17.2	22.9	14.1	µg / m³	18.1	80
5	Ozone as O_3	IS 5182(part-9):2019	4.0	4.1	3.7	µg / m³	3.9	100
6	Lead	IS-5182(Part-22):2019	0.080	0.079	0.070	µg / m³	0.076	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.32	0.25	mg / m³	0.28	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.20	1.21	1.17	µg / m³	1.19	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note: 1. The results listed only to the tested samples & applicable parameters.
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MSV Analytical Laboratories

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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1246**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2328	2329	2330			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004502F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7074	7075	7076			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	57.4	61.3	56.3	µg / m³	58.3	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	16.3	20.4	15.2	µg / m³	17.3	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	7.4	11.9	7.4	µg / m³	8.9	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	13.1	19.5	13.3	µg / m³	15.3	80
5	Ozone as O_3	IS 5182(part-9):2019	8.2	8.0	7.7	µg / m³	8.0	100
6	Lead	IS-5182(Part-22):2019	0.013	0.012	0.011	µg / m³	0.012	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.35	0.29	mg / m³	0.31	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.12	1.11	1.10	µg / m³	1.11	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT :-

Note: 1.The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	13.07.2023
6.	**Date of Sample Receipt**	:	15.07.2023
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue Date**	:	19.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1247**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2331	2332	2333			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004790F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7539	7340	7541			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	58.7	54.4	50.5	µg / m³	54.5	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	27.8	30.1	26.3	µg / m³	28.1	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	17.9	20.1	16.2	µg / m³	18.1	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	26.2	28.9	25.3	µg / m³	26.8	80
5	Ozone as O_3	IS 5182(part-9):2019	9.3	10.1	8.8	µg / m³	9.4	100
6	Lead	IS-5182(Part-22):2019	0.036	0.048	0.029	µg / m³	0.038	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.25	0.30	0.28	mg / m³	0.28	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.85	1.99	1.78	µg / m³	1.87	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1431**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2600	2601	2602			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004791F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7542	7543	7544			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	49.6	51.5	47.8	µg / m³	49.6	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	20.4	22.4	10.5	µg / m³	17.8	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	12.3	15.3	11.1	µg / m³	12.9	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	18.7	21.4	16.2	µg / m³	18.8	80
5	Ozone as O_3	IS 5182(part-9):2019	9.8	8.8	7.6	µg / m³	8.7	100
6	Lead	IS-5182(Part-22):2019	0.031	0.044	0.030	µg / m³	0.035	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.36	0.24	mg / m³	0.31	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.31	1.33	1.29	µg / m³	1.31	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note. 1. The results listed only to the tested samples & applicable parameters.
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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1432**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2603	2604	2605			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

:END OF REPORT:

Note : 1. The results listed only to the tested samples & applicable parameters,
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(Certified by ISO 14001:2015, ISO 45001:2018, ISO 9001:2015, ISO 22000:2018)

C.M.C Ward No 18 & C.T.C W.No.16 T.S No. 695/A/32/B1, Block No 19 (1st & 2nd Floor)

Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004792F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7545	7546	7547			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	47.2	50.1	44.5	µg / m³	47.3	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	18.1	20.2	17.1	µg / m³	18.5	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.6	13.3	9.1	µg / m³	11.0	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	15.2	19.3	13.3	µg / m³	15.9	80
5	Ozone as O_3	IS 5182(part-9):2019	8.6	8.8	7.5	µg / m³	8.3	100
6	Lead	IS-5182(Part-22):2019	0.031	0.034	0.029	µg / m³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.32	0.28	mg / m³	0.30	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.23	1.27	1.16	µg / m³	1.22	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT :-

Note: 1. The results listed only to the tested samples & applicable parameters.
2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary jurisdiction only.
5. Sampling is not done by us unless otherwise specified.

MSV Analytical Laboratories

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **MSVAL/2023/1433**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2606	2607	2608			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004793F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7548	7549	7550			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	49.2	50.6	47.3	µg / m³	49.0	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	19.2	21.4	16.9	µg / m³	19.2	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.6	13.6	9.6	µg / m³	11.3	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	13.4	15.2	10.6	µg / m³	13.1	80
5	Ozone as O_3	IS 5182(part-9):2019	8.9	8.8	8.4	µg / m³	8.7	100
6	Lead	IS-5182(Part-22):2019	0.031	0.033	0.022	µg / m³	0.029	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.30	0.26	mg / m³	0.28	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.29	1.31	1.27	µg / m³	1.29	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT:-

Note: 1. The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	17.07.2023
6.	**Date of Sample Receipt**	:	18.07.2023
7.	**Analysis Starting Date**	:	19.07.2023
8.	**Analysis Completion Date**	:	20.07.2023
9.	**Report Issue Date**	:	22.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **MSVAL/2023/1434**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2609	2610	2611			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-- END OF REPORT --

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	20.07.2023
6.	**Date of Sample Receipt**	:	21.07.2023
7.	**Analysis Starting Date**	:	22.07.2023
8.	**Analysis Completion Date**	:	25.07.2023
9.	**Report Issue Date**	:	26.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004917F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7872	7873	7874			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	57.2	59.5	51.4	µg / m³	56.0	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	23.4	25.2	19.1	µg / m³	22.6	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	7.2	11.8	7.0	µg / m³	8.7	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	14.0	18.2	11.6	µg / m³	14.6	80
5	Ozone as O_3	IS 5182(part-9):2019	10.3	9.5	8.3	µg / m³	9.4	100
6	Lead	IS-5182(Part-22):2019	0.020	0.026	0.018	µg / m³	0.021	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.58	0.40	0.34	mg / m³	0.44	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.29	1.32	1.25	µg / m³	1.29	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT

Note 1.The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	20.07.2023
6.	**Date of Sample Receipt**	:	21.07.2023
7.	**Analysis Starting Date**	:	22.07.2023
8.	**Analysis Completion Date**	:	25.07.2023
9.	**Report Issue Date**	:	26.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1501**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2721	2722	2723			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	20.07.2023
6.	**Date of Sample Receipt**	:	21.07.2023
7.	**Analysis Starting Date**	:	22.07.2023
8.	**Analysis Completion Date**	:	25.07.2023
9.	**Report Issue Date**	:	26.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004918F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7874	7875	7876			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	58.4	59.2	55.1	µg / m³	57.6	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	17.5	22.3	12.4	µg / m³	17.4	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	9.5	11.8	8.5	µg / m³	9.9	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	15.9	19.3	12.2	µg / m³	15.8	80
5	Ozone as O_3	IS 5182(part-9):2019	12.3	11.9	9.0	µg / m³	11.1	100
6	Lead	IS-5182(Part-22):2019	0.045	0.034	0.030	µg / m³	0.036	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.30	mg / m³	0.33	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.34	1.27	1.20	µg / m³	1.27	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BELLARY

END OF REPORT

Note: 1. The results listed only to the tested samples & applicable parameters.
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MSV Analytical Laboratories

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	20.07.2023
6.	**Date of Sample Receipt**	:	21.07.2023
7.	**Analysis Starting Date**	:	22.07.2023
8.	**Analysis Completion Date**	:	25.07.2023
9.	**Report Issue Date**	:	26.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1502**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2724	2725	2726			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. **Name and Address of Industry** : **M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2. **Name of the location** : **Vysanakere Village**
3. **Sample Collected By** : MSV Analytical Laboratories, Bellary.
4. **Particulars of the sampling Equipments** : Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5. **Date of Monitoring** : 20.07.2023
6. **Date of Sample Receipt** : 21.07.2023
7. **Analysis Starting Date** : 22.07.2023
8. **Analysis Completion Date** : 25.07.2023
9. **Report Issue Date** : 26.07.2023
10. **Sampling Protocol** : IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004919F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7877	7878	7879			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	55.1	59.2	52.2	µg / m³	55.5	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	15.7	22.4	13.3	µg / m³	17.1	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.6	12.3	9.6	µg / m³	10.8	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	16.3	18.6	12.6	µg / m³	15.8	80
5	Ozone as O_3	IS 5182(part-9):2019	10.3	9.2	8.6	µg / m³	9.4	100
6	Lead	IS-5182(Part-22):2019	0.036	0.030	0.026	µg / m³	0.031	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.20	0.24	0.18	mg / m³	0.21	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.29	1.20	1.15	µg / m³	1.21	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT :-

Note: 1.The results listed only to the tested samples & applicable parameters.
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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	20.07.2023
6.	**Date of Sample Receipt**	:	21.07.2023
7.	**Analysis Starting Date**	:	22.07.2023
8.	**Analysis Completion Date**	:	25.07.2023
9.	**Report Issue Date**	:	26.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1503**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2727	2728	2729			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	20.07.2023
6.	**Date of Sample Receipt**	:	21.07.2023
7.	**Analysis Starting Date**	:	22.07.2023
8.	**Analysis Completion Date**	:	25.07.2023
9.	**Report Issue Date**	:	26.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000004920F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			7880	7881	7882			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	56.4	59.2	52.1	µg / m³	55.9	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	20.7	24.5	17.4	µg / m³	20.9	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	8.5	11.5	8.5	µg / m³	9.5	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	16.6	19.6	13.0	µg / m³	16.4	80
5	Ozone as O_3	IS 5182(part-9):2019	10.8	9.5	8.2	µg / m³	9.5	100
6	Lead	IS-5182(Part-22):2019	0.038	0.025	0.019	µg / m³	0.027	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.29	0.34	0.22	mg / m³	0.28	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.33	1.28	1.15	µg / m³	1.25	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note: 1.The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	20.07.2023
6.	**Date of Sample Receipt**	:	21.07.2023
7.	**Analysis Starting Date**	:	22.07.2023
8.	**Analysis Completion Date**	:	25.07.2023
9.	**Report Issue Date**	:	26.07.2023
10.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1504**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2730	2731	2732			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

:END OF REPORT:

Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	24.07.2023
6.	**Date of Sample Receipt**	:	25.07.2023
8.	**Analysis Starting Date**	:	25.07.2023
9.	**Analysis Completion Date**	:	28.07.2023
10.	**Report Issue Date**	:	29.07.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005264F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			8563	8564	8565			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	56.7	59.2	52.4	µg / m³	56.1	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	26.6	29.1	22.8	µg / m³	26.2	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.2	16.8	9.8	µg / m³	12.3	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	17.8	20.8	13.8	µg / m³	17.5	80
5	Ozone as O_3	IS 5182(part-9):2019	9.7	12.2	18.4	µg / m³	13.4	100
6	Lead	IS-5182(Part-22):2019	0.052	0.048	0.038	µg / m³	0.046	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.32	mg / m³	0.34	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.22	1.20	1.18	µg / m³	1.20	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

:: END OF REPORT ::

Note. 1.The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	24.07.2023
6.	**Date of Sample Receipt**	:	25.07.2023
8.	**Analysis Starting Date**	:	25.07.2023
9.	**Analysis Completion Date**	:	28.07.2023
10.	**Report Issue Date**	:	29.07.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1615**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2947	2948	2949			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

:-END OF REPORT:-

Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	24.07.2023
6.	**Date of Sample Receipt**	:	25.07.2023
8.	**Analysis Starting Date**	:	25.07.2023
9.	**Analysis Completion Date**	:	28.07.2023
10.	**Report Issue Date**	:	29.07.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005265F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			8566	8567	8568			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	51.3	54.3	48.6	µg / m³	51.40	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	20.4	23.1	18.8	µg / m³	20.77	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.8	11.8	9.7	µg / m³	10.77	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	19.0	18.8	16.8	µg / m³	18.20	80
5	Ozone as O_3	IS 5182(part-9):2019	9.4	8.6	7.4	µg / m³	8.47	100
6	Lead	IS-5182(Part-22):2019	0.019	0.017	0.015	µg / m³	0.017	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.24	0.28	mg / m³	0.25	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.32	1.28	1.27	µg / m³	1.29	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT :-

Note: 1.The results listed only to the tested samples & applicable parameters.
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5. Sampling is not done by us unless otherwise specified.

MSV Analytical Laboratories

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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	24.07.2023
6.	**Date of Sample Receipt**	:	25.07.2023
8.	**Analysis Starting Date**	:	25.07.2023
9.	**Analysis Completion Date**	:	28.07.2023
10.	**Report Issue Date**	:	29.07.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1616**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2950	2951	2952			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	24.07.2023
6.	**Date of Sample Receipt**	:	25.07.2023
8.	**Analysis Starting Date**	:	25.07.2023
9.	**Analysis Completion Date**	:	28.07.2023
10.	**Report Issue Date**	:	29.07.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005266F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			8569	8570	8571			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	48.7	52.3	45.6	µg / m³	48.9	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	19.4	22.1	17.8	µg / m³	19.8	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.8	13.8	8.7	µg / m³	11.1	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	15.9	19.8	12.8	µg / m³	16.2	80
5	Ozone as O_3	IS 5182(part-9):2019	10.4	9.6	7.0	µg / m³	9.0	100
6	Lead	IS-5182(Part-22):2019	0.020	0.024	0.014	µg / m³	0.019	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.32	0.24	mg / m³	0.28	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.30	1.36	1.26	µg / m³	1.31	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note: 1. The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	Name and Address of Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Name of the location	:	Vysanakere Village
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
4.	Particulars of the sampling Equipments	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	Date of Monitoring	:	24.07.2023
6.	Date of Sample Receipt	:	25.07.2023
8.	Analysis Starting Date	:	25.07.2023
9.	Analysis Completion Date	:	28.07.2023
10.	Report Issue Date	:	29.07.2023
11.	Sampling Protocol	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1617**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2953	2954	2955			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	24.07.2023
6.	**Date of Sample Receipt**	:	25.07.2023
8.	**Analysis Starting Date**	:	25.07.2023
9.	**Analysis Completion Date**	:	28.07.2023
10.	**Report Issue Date**	:	29.07.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005267F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			8572	8573	8574			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	56.8	59.6	51.8	µg / m³	56.07	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	17.9	22.3	15.3	µg / m³	18.50	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	11.6	14.8	9.5	µg / m³	11.97	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	16.7	20.6	12.8	µg / m³	16.70	80
5	Ozone as O_3	IS 5182(part-9):2019	8.4	7.8	5.9	µg / m³	7.37	100
6	Lead	IS-5182(Part-22):2019	0.036	0.034	0.030	µg / m³	0.033	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.31	0.36	0.26	mg / m³	0.31	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	1.29	1.33	1.25	µg / m³	1.29	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT :-

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	Name and Address of Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Name of the location	:	Gunda Village
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
4.	Particulars of the sampling Equipments	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	Date of Monitoring	:	24.07.2023
6.	Date of Sample Receipt	:	25.07.2023
8.	Analysis Starting Date	:	25.07.2023
9.	Analysis Completion Date	:	28.07.2023
10.	Report Issue Date	:	29.07.2023
11.	Sampling Protocol	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1618**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			2956	2957	2958			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Smiore Colony**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS 460BL and FDS
5.	**Date of Monitoring**	:	28.07.2023
6.	**Date of Sample Receipt**	:	29.07.2023
8.	**Analysis Starting Date**	:	29.07.2023
9.	**Analysis Completion Date**	:	01.08.2023
10.	**Report Issue Date**	:	02.08.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005583F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			9120	9121	9122			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	58.7	56.5	52.2	µg / m³	55.8	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	24.4	20.6	18.7	µg / m³	21.2	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	10.2	9.8	9.6	µg / m³	9.9	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	15.2	13.2	12.4	µg / m³	13.6	80
5	Ozone as O_3	IS 5182(part-9):2019	12.3	11.6	10.8	µg / m³	11.6	100
6	Lead	IS-5182(Part-22):2019	0.044	0.040	0.038	µg / m³	0.041	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.30	0.28	mg / m³	0.30	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.86	0.72	0.65	µg / m³	0.74	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note. 1. The results listed only to the tested samples & applicable parameters.
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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	Name and Address of Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Name of the location	:	Smiore Colony
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
4.	Particulars of the sampling Equipments	:	Sample collected with RDS 460BL and FDS
5.	Date of Monitoring	:	28.07.2023
6.	Date of Sample Receipt	:	29.07.2023
8.	Analysis Starting Date	:	29.07.2023
9.	Analysis Completion Date	:	01.08.2023
10.	Report Issue Date	:	02.08.2023
11.	Sampling Protocol	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1810**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3212	3213	3214			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	As per NAAQS Standards Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	28.07.2023
6.	**Date of Sample Receipt**	:	29.07.2023
8.	**Analysis Starting Date**	:	29.07.2023
9.	**Analysis Completion Date**	:	01.08.2023
10.	**Report Issue Date**	:	02.08.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005584F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			9123	9124	9125			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	52.2	50.3	48.7	µg / m³	50.4	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	16.6	15.4	14.3	µg / m³	15.4	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	9.4	8.8	8.2	µg / m³	8.8	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	12.2	11.6	10.8	µg / m³	11.5	80
5	Ozone as O_3	IS 5182(part-9):2019	10.6	9.8	9.2	µg / m³	9.9	100
6	Lead	IS-5182(Part-22):2019	0.033	0.030	0.026	µg / m³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.24	0.22	mg / m³	0.25	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.50	0.44	0.46	µg / m³	0.47	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

:END OF REPORT:-

Note: 1.The results listed only to the tested samples & applicable parameters.
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5. Sampling is not done by us unless otherwise specified.

MSV Analytical Laboratories

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Email : labmsv@gmail.com, msvalbellary2018@gmail.com, msv.lab01@gmail.com Web ID : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Kallahalli Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS EI-42 43-E-18 and FDS
5.	**Date of Monitoring**	:	28.07.2023
6.	**Date of Sample Receipt**	:	29.07.2023
8.	**Analysis Starting Date**	:	29.07.2023
9.	**Analysis Completion Date**	:	01.08.2023
10.	**Report Issue Date**	:	02.08.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1811**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3215	3216	3217			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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MSV Analytical Laboratories

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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	28.07.2023
6.	**Date of Sample Receipt**	:	29.07.2023
8.	**Analysis Starting Date**	:	29.07.2023
9.	**Analysis Completion Date**	:	01.08.2023
10.	**Report Issue Date**	:	02.08.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005585F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			9126	9127	9128			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	48.8	46.6	42.2	µg / m³	45.9	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	18.7	16.6	15.4	µg / m³	16.9	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	8.8	7.8	7.3	µg / m³	8.0	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	12.4	11.8	11.1	µg / m³	11.8	80
5	Ozone as O_3	IS 5182(part-9):2019	12.3	10.6	10.1	µg / m³	11.0	100
6	Lead	IS-5182(Part-22):2019	0.026	0.022	0.020	µg / m³	0.023	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.21	0.20	mg / m³	0.21	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.32	0.30	0.28	µg / m³	0.30	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT

Note 1. The results listed only to the tested samples & applicable parameters.
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MSV Analytical Laboratories

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E-mail : msv.lab01@gmail.com, labmsv@gmail.com, Website : www.msvalbellary.com

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Vysanakere Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS GTI-151 202-DTL-2019 and FDS
5.	**Date of Monitoring**	:	28.07.2023
6.	**Date of Sample Receipt**	:	29.07.2023
8.	**Analysis Starting Date**	:	29.07.2023
9.	**Analysis Completion Date**	:	01.08.2023
10.	**Report Issue Date**	:	02.08.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1812**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3218	3219	3220			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	28.07.2023
6.	**Date of Sample Receipt**	:	29.07.2023
8.	**Analysis Starting Date**	:	29.07.2023
9.	**Analysis Completion Date**	:	01.08.2023
10.	**Report Issue Date**	:	02.08.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: TC407123000005586F**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			9129	9130	9131			
1	Particulate Matter PM_{10}	IS-5182(Part-23):2017	45.5	42.2	40.6	µg / m³	42.8	100
2	Particulate Matter or $PM_{2.5}$	IS-5182(Part-24):2019	14.4	12.3	12.6	µg / m³	13.1	60
3	Sulphur Dioxide as SO_x	IS-5182(Part-2):2017	7.7	7.6	7.3	µg / m³	7.5	80
4	Oxides of Nitrogen as NO_x	IS-5182(Part-6):2017	10.4	10.1	10.0	µg / m³	10.2	80
5	Ozone as O_3	IS 5182(part-9):2019	10.6	11.2	10.8	µg / m³	10.9	100
6	Lead	IS-5182(Part-22):2019	0.021	0.022	0.021	µg / m³	0.021	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.20	0.18	0.22	mg / m³	0.20	2
8	Ammonia as NH_3	IS-5182(part-25):2018	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	IS-5182(part-26):2020	0.34	0.30	0.28	µg / m³	0.31	20
10	Arsenic as AS	MSVAL/SOP/A/009 - As per CPCB Manual: 2022	<0.01	<0.01	<0.01	µg / m³	<0.01	6

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT:-

Note: 1.The results listed only to the tested samples & applicable parameters.
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MSVAL/AA/RF/01/00

ANALYSIS REPORT OF AMBIENT AIR QUALITY

1.	**Name and Address of Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Name of the location**	:	**Gunda Village**
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
4.	**Particulars of the sampling Equipments**	:	Sample collected with RDS APM 4601799-DTI-2010 and FDS
5.	**Date of Monitoring**	:	28.07.2023
6.	**Date of Sample Receipt**	:	29.07.2023
8.	**Analysis Starting Date**	:	29.07.2023
9.	**Analysis Completion Date**	:	01.08.2023
10.	**Report Issue Date**	:	02.08.2023
11.	**Sampling Protocol**	:	IS 5182 : Part 14 : 2019

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Ambient Air** **ULR No: MSVAL/2023/1813**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
			3221	3222	3223			
11	Benzene as C_6H_6	IS 5182: Part 11:2017	<0.01	<0.01	<0.01	µg / m³	<0.01	5
12	Benzo (a) Pyrene	IS 5182: Part 12:2019	<0.01	<0.01	<0.01	ng / m³	<0.01	1

INFERENCE	**As per NAAQS Standards** **Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-- END OF REPORT --

Note : 1. The results listed only to the tested samples & applicable parameters,
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TC- 4071

MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMMISSION

1.	**Name and Address of the Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Stack ID**	:	Coke Screening& Store
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary
4.	**Date of Monitoring**	:	13.07.2023
5.	**Date of Sample Receipt**	:	14.07.2023
6.	**Sample Code**	:	7090
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue date**	:	19.07.2023

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Stack emission** **ULR No: TC407123000004516F**

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	---
Ambient Temperature (°C)	26
Stack Temperature (°C)	50
Velocity (m/s)	5.5
Height (m)	15 mtrs AGL
Diameter (m)	0.7
Cross sectional area (m²)	0.3850

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm³	34.8	50

INFERENCE	**As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-- END OF REPORT --

MSV ANALYTICAL LABORATORIES BALLARI

Note: 1. The results listed only to the tested samples & applicable parameters.
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TC- 4071

MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMMISSION

1.	Name and Address of the Industry	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	Stack ID	:	Coke Cutter
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary
4.	Date of Monitoring	:	13.07.2023
5.	Date of Sample Receipt	:	14.07.2023
6.	Sample Code	:	7089
7.	Analysis Starting Date	:	15.07.2023
8.	Analysis Completion Date	:	18.07.2023
9.	Report Issue date	:	19.07.2023

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Stack emission** **ULR No: TC407123000004515F**

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	---
Ambient Temperature (°C)	26
Stack Temperature (°C)	45
Velocity (m/s)	5.5
Height (m)	15 mtrs AGL
Diameter (m)	0.7
Cross sectional area (m²)	0.3850

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm³	33.6	50

INFERENCE	**As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

TC- 4071

MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMMISSION

1.	**Name and Address of the Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Stack ID**	:	Coal Crushing Area
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary
4.	**Date of Monitoring**	:	13.07.2023
5.	**Date of Sample Receipt**	:	14.07.2023
6.	**Sample Code**	:	7091
7.	**Analysis Starting Date**	:	15.07.2023
8.	**Analysis Completion Date**	:	18.07.2023
9.	**Report Issue date**	:	19.07.2023

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Stack emission** **ULR No: TC407123000004517F**

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	---
Ambient Temperature (°C)	26
Stack Temperature (°C)	47
Velocity (m/s)	5.7
Height (m)	15 mtrs AGL
Diameter (m)	0.75
Cross sectional area (m²)	0.4419

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS 11255 (Part-1): 2019	mg/Nm³	30.6	50

INFERENCE	**As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

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MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMMISSION

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2.	Stack ID	:	Coke Oven Battery – Passes Through WHRB-1
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary
4.	Date of Monitoring	:	07.07.2023
5.	Date of Sample Receipt	:	08.07.2023
6.	Sample Code	:	6410
7.	Analysis Starting Date	:	11.07.2023
8.	Analysis Completion Date	:	13.07.2023
9.	Report Issue date	:	14.07.2023

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Stack emission** **ULR No: TC407123000004126F**

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	---
Ambient Temperature (°C)	28
Stack Temperature (°C)	120
Velocity (m/s)	6.7
Height (m)	60 mtrs AGL
Diameter (m)	4.6
Cross sectional area (m²)	16.62647

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) – 2013	Nm³/hr	401030.4564	---
Particulate Matter	IS-11255(Part-1) – 2019	mg/Nm³	26.4	50
Sulphur dioxide	IS-11255(Part-2) – 2019	mg/Nm³	34.4	800
Nitrogen dioxide	IS-11255(Part-7) – 2017	mg/Nm³	50.2	500
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%	6.1	---
Carbon Monoxide		%	0.32	Max 1%

INFERENCE	**As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

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TC- 4071

MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMMISSION

1.	Name and Address of the Industry	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	Stack ID	:	Coke Oven Battery – Passes Through WHRB-2
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary
4.	Date of Monitoring	:	07.07.2023
5.	Date of Sample Receipt	:	08.07.2023
6.	Sample Code	:	6411
7.	Analysis Starting Date	:	11.07.2023
8.	Analysis Completion Date	:	13.07.2023
9.	Report Issue date	:	14.07.2023

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Stack emission** **ULR No: TC407123000004127F**

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	---
Ambient Temperature (°C)	28
Stack Temperature (°C)	125
Velocity (m/s)	6.8
Height (m)	60 mtrs AGL
Diameter (m)	4.6
Cross sectional area (m²)	16.62647

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) – 2013	Nm³/hr	407015.9856	---
Particulate Matter	IS-11255(Part-1) – 2019	mg/Nm³	27.6	50
Sulphur dioxide	IS-11255(Part-2) – 2019	mg/Nm³	47.2	800
Nitrogen dioxide	IS-11255(Part-7) – 2017	mg/Nm³	36.4	500
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%	5.9	---
Carbon Monoxide		%	0.34	Max 1%

INFERENCE	**As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT :-

MSV ANALYTICAL LABORATORIES BALLARI

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MSVAL/SE/RF/01/00

ANALYSIS REPORT FOR SOURCE EMMISSION

1.	Name and Address of the Industry	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	Stack ID	:	Ferro Alloy Arc Furnace 5
3.	Sample Collected By	:	MSV Analytical Laboratories, Bellary
4.	Date of Monitoring	:	06.07.2023
5.	Date of Sample Receipt	:	06.07.2023
6.	Sample Code	:	6931
7.	Analysis Starting Date	:	07.07.2023
8.	Analysis Completion Date	:	08.07.2023
9.	Report Issue date	:	17.07.2023

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Stack emission** **ULR No: TC407123000004413F**

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	---
Ambient Temperature (°C)	27
Stack Temperature (°C)	93
Velocity (m/s)	6.2
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m²)	4.9109

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) – 2013	Nm³/hr	109611.288	---
Particulate Matter	IS-11255(Part-1) – 2019	mg/Nm³	36.7	150
Sulphur dioxide	IS-11255(Part-2) – 2019	mg/Nm³	21.3	---
Nitrogen dioxide	IS-11255(Part-7) – 2017	mg/Nm³	30.2	---
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%	4.31	---

INFERENCE	**As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

-:END OF REPORT:-

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

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TC- 4071

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ANALYSIS REPORT FOR SOURCE EMMISSION

1.	**Name and Address of the Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Stack ID**	:	Ferro Alloy Arc Furnace 3
3.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary
4.	**Date of Monitoring**	:	11.07.2023
5.	**Date of Sample Receipt**	:	12.07.2023
6.	**Sample Code**	:	6932
7.	**Analysis Starting Date**	:	13.07.2023
8.	**Analysis Completion Date**	:	15.07.2023
9.	**Report Issue date**	:	17.07.2023

Discipline: Chemical **Group: Atmospheric Pollution** **Sub Group: Stack emission** **ULR No: TC407123000004414F**

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with VSS _1
Fuel Used	---
Ambient Temperature (°C)	27
Stack Temperature (°C)	90
Velocity (m/s)	6.1
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m²)	4.9109

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Rate of discharge	IS-11255(Part-3) – 2013	Nm³/hr	107843.364	---
Particulate Matter	IS-11255(Part-1) – 2019	mg/Nm³	38.6	150
Sulphur dioxide	IS-11255(Part-2) – 2019	mg/Nm³	22.8	---
Nitrogen dioxide	IS-11255(Part-7) – 2017	mg/Nm³	31.3	---
Oxygen	IS 13270 (Orsat Apparatus USEPA 3A:1989): 2019	%	5.31	---

INFERENCE	**As per GSR 277 (E) Standards , Report Status :- The analyzed values for above measured parameter are within the limits**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-: END OF REPORT:-

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TC- 4071

MSVAL/FE/RF/01/00

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No : TC4071230004213F **Report Issued Date : 16.07.2023**

1. **Name and Address of the Industry** : **M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2. **Name of the Location** : **Near Arc Furnace**
3. **Particulars of the sample collected** : Sample collected with High Volume Sampler
4. **Sample Collected By** : MSV Analytical Laboratories, Bellary
5. **Date of Sample Receipt** : 08.07.2023
6. **Sample Code** : 6546
7. **Analysis Starting Date** : 09.07.2023
8. **Analysis Completion Date** : 14.07.2023
9. **Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit GSR277 (E)
			1	2	3			
1	Suspended Particulate Matter	IS 5182 Part 4	720.2	756.8	740.5	µg / m³	739.2	3000
2	Sulphur Dioxide as SO_2	IS 5182 Part 2	18.9	11.4	12.8	µg / m³	14.4	150
3	Oxides of Nitrogen as NO_x	IS 5182 Part 6	16.7	15.6	12.8	µg / m³	15.0	120
4	Lead as Pb	IS 5182 Part 22	0.047	0.042	0.035	µg / m³	0.041	2
5	Carbon Monoxide as CO	MSVAL/SOP/F/001	542.4	530.1	521.7	µg / m³	531.40	5000

INFERENCE	**Standards as per GSR277 (E)** **Report Status: - The analyzed values for above measured parameter are within the limits.**

Analysed by

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

:-END OF REPORT:-

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TC- 4071

MSVAL/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No : TC4071230004214F **Report Issued Date : 16.07.2023**

1.	Name of the Industry	:	M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.
2.	Sample Collected By	:	MSV Analytical Laboratories, Bellary.
3.	Name of the Location	:	Near Power Plant
4.	Particulars of the sample collected	:	Sample collected with High Volume Sampler
5.	Date of Sample Receipt	:	08.07.2023
6.	Sample Code	:	6547
7.	Analysis Starting Date	:	09.07.2023
8.	Analysis Completion Date	:	14.07.2023
9.	Sample Tested as Received		

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit GSR277 (E)
			1	2	3			
1	Suspended Particulate Matter	IS-5182(Part-4) -2017	563.2	562.4	566.7	µg / m³	564.1	3000
2	Sulphur Dioxide as SO_2	CPCB Procedure	11.8	13.8	17.1	µg / m³	14.2	150
3	Oxides of Nitrogen as NO_x	IS-5182(Part-6) – 2006	18.7	15.8	11.8	µg / m³	15.4	120
4	Lead as Pb	IS-5182 (Part22) – 2004	0.041	0.038	0.040	µg / m³	0.040	2
5	Carbon Monoxide as CO	MSVAL/SOP/A/ 007	522.3	510.8	535.7	µg / m³	522.93	5000

INFERENCE	Standards as per GSR277 (E) Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT:-

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MSVAL/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No : MSVAL/2023/ 1130 **Report Issued Date : 16.07.2023**

1.	**Name of the Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
3.	**Name of the Location**	:	**Near Coal Shed Area**
4.	**Particulars of the sample collected**	:	Sample collected with High Volume Sampler
5.	**Date of Sample Receipt**	:	08.07.2023
6.	**Sample Code**	:	2120
7.	**Analysis Starting Date**	:	09.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Sample Tested as Received**		

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit GSR277 (E)
			1	2	3			
1	**Suspended Particulate Matter**	IS-5182(Part-4) –2017	850.7	840.7	846.8	µg / m³	846.1	3000
2	**Sulphur Dioxide as SO_2**	CPCB Procedure	13.8	11.9	10.8	µg / m³	12.2	150
3	**Oxides of Nitrogen as NO_x**	IS-5182(Part-6) – 2006	16.7	14.9	13.7	µg / m³	15.1	120
4	**Lead as Pb**	IS-5182 (Part22) – 2004	0.050	0.055	0.052	µg / m³	0.052	2
5	**Carbon Monoxide as CO**	MSVAL/SOP/A/ 007	540.4	530.3	520.7	µg / m³	530.47	5000
6	**Benzo (α) Pyrene (BaP)**	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	**<0.01**	2

INFERENCE	**Standards as per GSR277 (E)** **Report Status: - The analyzed values for above measured parameter are within the limits.**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

--END OF REPORT:-

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 9945456764, 08392-255169

Email : msvalbellary2018@gmail.com, labmsv@gmail.com Web ID : www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No : MSVAL/2023/ 1131 **Report Issued Date : 16.07.2023**

1.	**Name of the Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
3.	**Name of the Location**	:	**Near Coke Oven Plant**
4.	**Particulars of the sample collected**	:	Sample collected with High Volume Sampler
5.	**Date of Sample Receipt**	:	08.07.2023
6.	**Sample Code**	:	2121
7.	**Analysis Starting Date**	:	09.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Sample Tested as Received**		

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit GSR277 (E)
			1	2	3			
1	**Suspended Particulate Matter**	IS-5182(Part-4) –2017	652.3	650.4	640.7	µg / m³	647.8	3000
2	**Sulphur Dioxide as SO_2**	CPCB Procedure	12.7	11.9	09.8	µg / m³	11.5	150
3	**Oxides of Nitrogen as NO_x**	IS-5182(Part-6) – 2006	17.9	15.2	12.9	µg / m³	15.3	120
4	**Lead as Pb**	IS-5182 (Part22) – 2004	0.040	0.045	0.034	µg / m³	0.040	2
5	**Carbon Monoxide as CO**	MSVAL/SOP/A/ 007	590.1	520.8	510.9	µg / m³	540.60	5000
6	**Benzo (α) Pyrene (BaP)**	CPCB Procedure	<0.01	<0.01	<0.01	µg / m³	**<0.01**	2

INFERENCE	**Standards as per GSR277 (E)** **Report Status: - The analyzed values for above measured parameter are within the limits.**

Analysed by

MSV ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

: END OF REPORT:-

Note: 1. The results listed only to the tested samples & applicable parameters.
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5. Sampling is not done by us unless otherwise specified.

MSV Analytical Laboratories

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TC- 4071

MSVAL/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No : TC4071230004217F **Report Issued Date : 16.07.2023**

1.	**Name of the Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
3.	**Name of the Location**	:	**Near Main Gate**
4.	**Particulars of the sample collected**	:	Sample collected with High Volume Sampler
5.	**Date of Sample Receipt**	:	08.07.2023
6.	**Sample Code**	:	6550
7.	**Analysis Starting Date**	:	09.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Sample Tested as Received**		

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit GSR277 (E)
			1	2	3			
1	**Suspended Particulate Matter**	IS-5182(Part-4) -2017	360.6	350.7	356.7	µg / m³	356.0	3000
2	**Sulphur Dioxide as SO_2**	CPCB Procedure	9.2	10.8	6.4	µg / m³	8.8	150
3	**Oxides of Nitrogen as NO_x**	IS-5182(Part-6) – 2006	10.8	8.7	9.5	µg / m³	9.7	120
4	**Lead as Pb**	IS-5182 (Part22) – 2004	0.030	0.029	0.024	µg / m³	0.028	2
5	**Carbon Monoxide as CO**	MSVAL/SOP/A/ 007	320.1	316.4	297.7	µg / m³	311.40	5000

INFERENCE	**Standards as per GSR277 (E)** **Report Status: - The analyzed values for above measured parameter are within the limits.**

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

MSV ANALYTICAL LABORATORIES BALLARI

-- END OF REPORT --

Note. 1. The results listed only to the tested samples & applicable parameters.
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TC- 4071

MSVAL/A/F/16/03

ANALYSIS REPORT OF FUGITIVE EMISSION

Test Report No : TC4071230004218F **Report Issued Date : 16.07.2023**

1.	**Name of the Industry**	:	**M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2.	**Sample Collected By**	:	MSV Analytical Laboratories, Bellary.
3.	**Name of the Location**	:	**Near iron Ore Beneficiation Plant**
4.	**Particulars of the sample collected**	:	Sample collected with High Volume Sampler
5.	**Date of Sample Receipt**	:	08.07.2023
6.	**Sample Code**	:	6551
7.	**Analysis Starting Date**	:	09.07.2023
8.	**Analysis Completion Date**	:	14.07.2023
9.	**Sample Tested as Received**		

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Standards Max Limit GSR277 (E)
			1	2	3			
1	**Suspended Particulate Matter**	IS-5182(Part-4) -2017	763.4	725.2	750.8	µg / m³	746.5	3000
2	**Sulphur Dioxide as SO_2**	CPCB Procedure	12.7	15.9	11.7	µg / m³	13.4	150
3	**Oxides of Nitrogen as NO_x**	IS-5182(Part-6) – 2006	16.7	14.7	12.7	µg / m³	14.7	120
4	**Lead as Pb**	IS-5182 (Part22) – 2004	0.052	0.053	0.050	µg / m³	0.052	2
5	**Carbon Monoxide as CO**	MSVAL/SOP/A/ 007	530.4	512.2	520.7	µg / m³	521.10	5000

INFERENCE	**Standards as per GSR277 (E)** **Report Status: - The analyzed values for above measured parameter are within the limits.**

Analysed by

MSV ANALYTICAL LABORATORIES BALLARI

END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters.
2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.
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TC- 4071

MSVAL/A/F/17/04

AMBIENT NOISE LEVEL MONITORING REPORT

Test Report No : TC407123000004433F **Report Issued Date :28.07.2023**

1. **Name of the industry** : **M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2. **Sample Collected By** : MSV Analytical Laboratories, Bellary
3. **Date of Monitoring** : 12.07.2023
4. **Report Date** : 28.07.2023
5. **Particulars of Sample Collected** : Noise meter
6. **Method Adopted** : IS 9989

S.No	Sample Location	Time Frequency	Day Time Results				
			Sample Code	Maximum in dB(A) Leq	Minimum in dB(A) Leq	Avg. in dB(A) Leq	Permissible limits in dB(A) Leq
1	Smiore Colony	09.00 am to 09.15 am	6960	50.4	43.1	46.8	55
2	Kallahalli Village	10.00 am to 10.15 am	6961	53.7	52.5	53.1	
3	Vysanakere Village	11.30 am to 11.45 am	6962	56.8	45.7	51.3	
4	Gunda Village	12.20 pm to 12.35 pm	6963	50.7	46.2	48.5	
5	Hanumanahalli (V)	03.10 pm to 03.25 pm	6964	52.7	47.1	49.9	
6	Venkatagiri Village	04.30 pm to 04.45 pm	6965	53.9	46.4	50.2	
7	Ramgad Village	05.00 pm to 05.15 pm	6966	50.3	45.3	47.8	
8	Rajapur Village	06.00 pm to 06.15 pm	6967	53.7	47.5	50.6	

INFERENCE	**As per CPCB Standards,** **Report Status :- In the all locations Noise level is within the limits**

Verified by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the Laboratory

-: END OF REPORT :-

Note. 1. The results listed only to the tested samples & applicable parameters.
2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.
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TC- 4071

MSVAL/A/F/17/04

AMBIENT NOISE LEVEL MONITORING REPORT

Test Report No : TC407123000004434F **Report Issued Date : 28.07.2023**

1. **Name of the industry** : **M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2. **Sample Collected By** : MSV Analytical Laboratories, Bellary
3. **Date of Monitoring** : 12.07.2023
4. **Report Date** : 28.07.2023
5. **Particulars of Sample Collected** : Noise meter
6. **Method Adopted** : IS 9989

S.No	Sample Location	Time Frequency	Sample Code	Night time Results			
				Maximum in dB(A) Leq	Minimum in dB(A) Leq	Avg. in dB(A) Leq	Permissible limits in dB(A) Leq
1	Smiore Colony	10.00 pm to 10.15 pm	6968	40.6	32.7	36.7	45
2	Kallahalli Village	10.30 pm to 10.45 pm	6969	42.7	30.2	36.5	
3	Vysanakere Village	10.55 pm to 11.10 pm	6970	43.6	34.3	39.0	
4	Gunda Village	11.20 pm to 11.35 pm	6971	40.2	37.6	38.9	
5	Hanumanahalli (V)	11.50 pm to 12.05 am	6972	43.5	32.9	38.2	
6	Venkatagiri Village	12.30 am to 12.45 am	6973	42.7	33.7	38.2	
7	Ramgad Village	01.00 am to 01.15 am	6974	47.8	32.5	40.2	
8	Rajapur Village	02.00 am to 02.15 am	6975	42.8	30.6	36.7	

INFERENCE	**As per CPCB Standards, Report Status :- In the all locations Noise level is within the limits**

Verified by

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the Laboratory

-: END OF REPORT :-

Note: 1.The results listed only to the tested samples & applicable parameters.
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TC- 4071

MSVAL/A/F/17/04

WORK ZONE NOISE LEVEL MONITORING REPORT

Test Report No : TC407123000004435F **Report Issued Date : 28.07.2023**

1. **Name of the industry** : **M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.**
2. **Sample Collected By** : MSV Analytical Laboratories, Bellary
3. **Date of Monitoring** : 12.07.2023
4. **Report Date** : 28.07.2023
5. **Particulars of Sample Collected** : Noise meter
6. **Method Adopted** : IS 9989

S.No	Sample Location	Time Frequency	Work Zone Noise Monitoring				
			Sample Code	Maximum in dB(A) Leq	Minimum in dB(A) Leq	Avg. in dB(A) Leq	Permissible limits in dB(A) Leq
1	Near Coal Crusher Area	09.00 am to 10.00 am	6966	62.4	63.1	62.8	85
2	Coke Cutting Area	10.30 am to 11.30 am	6967	70.4	68.3	69.4	
3	Coke Screening Area	01.30 pm to 02.30pm	6968	66.7	64.4	65.6	
4	WHRB-1 Area	03.00 pm to 4.00 pm	6969	63.3	62.9	63.1	
5	ARC Furnace Area	04.10 pm to 05.10pm	6980	70.7	64.2	67.5	
6	Power Plante Area	05.30 pm to 06.30pm	6981	62.1	59.7	60.9	
7	Coal Shed Area	07.00 pm to 08.00pm	6982	63.3	62.8	63.1	
8	Coke Oven Area	08.30 pm to 09.30pm	6983	64.6	60.6	62.6	
9	DG Set Area	09.30 pm to 10.30pm	6984	63.7	61.3	62.5	

INFERENCE	**As per CPCB Standards,** **Report Status :- In the all locations Noise level is within the limits**

Verified by

ANALYTICAL LABORATORIES BALLARI

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the Laboratory

-: END OF REPORT:-

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