

Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015) 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, (0) : 08392-255169,

E-mail: msvalbellary2016@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020530F

Report Issued Date: 05.11.2022

1. Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

. Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Smiore Colony** 

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sample 5.

Sample collected with RDS APM460 and FDS GTI-131

**Date of Sample Receipt Analysis Starting Date** 

01.11.2022

**Analysis Completion Date** 

02.11.2022 05.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result	Tolerance
		TY TY	1	2	3	Units	in Avg.	limits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	57.4	58.2	56.3	μg / m³	57.3	100
2	Particulate Matter or PM <sub>2.5</sub> μg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	29.2	30.1	28.7	μg / m³	29.3	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) – 2001	10.3	11.2	9.3	μg / m³	10.3	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	16.4	17.1	15.3	μg / m³	16.3	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	9.2	9.1	9.0	μg / m³	9.1	100
6	Lead	IS-5182(Part22) - 2004	0.032	0.031	0.030	μg / m <sup>3</sup>	0.00	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.28	0.29	0.27	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.28	1.27	1.26	ng/m³	1.33	20

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits

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

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

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.

<sup>2.</sup> 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.

<sup>5.</sup> 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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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)
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E-mail: msv.lab01@gmail.com, Labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10615

Report Issued Date: 05.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt
 Analysis Starting Date
 Analysis Completion Date

01.11.2022 02.11.2022

8. Sample Tested as Received

: 05.11.2022

S.No	Parameter	Protocols	Sh	iift wise re	esults	Units	Result in	Tolerance limits
0.00			1	2	3		Avg.	
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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

The results listed only to the tested samples & applicable parameters, 2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed Smonths from the date of sue of test certificate unless otherwise specified. ILC sample will be destroyed after 1month from the date of test certificate issue. 3. This report is not to be reproduced wholly or in part & nount. 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 \*



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (0) : 08392-255169,

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



MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020533F

Report Issued Date: 05.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt **Analysis Starting Date** 

01.11.2022 02.11.2022

7. **Analysis Completion Date**  05.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise res	sults	Units	Result	Tolerance
			1	2	3	Units	in Avg.	limits
1	Particulate Matter PM <sub>10</sub> µg/m³	IS-5182(Part-23) – 2006	56.4	57.5	55.2	µg / m³	56.4	100
2	Particulate Matter or PM <sub>2.5</sub> μg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	18.7	19.6	17.4	μg / m³	18.6	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) – 2001	10.3	11.2	9.6	μg / m³	10.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006		18.1	15.4	µg / m³	16.8	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	10.5	9.6	8.9	μg / m³	9.7	100
6	Lead	IS-5182(Part22) - 2004	0.027	0.026	0.025	μg / m³	0.00	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.33	0.31	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.21	1.20	1.19	ng/m³	1.22	20

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

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

<sup>2.</sup> 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

<sup>3.</sup> 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.

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10618

Report Issued Date: 05.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Allovs Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary,

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt **Analysis Starting Date** 

01.11.2022

7. Analysis Completion Date

02.11.2022 05.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in	Tolerance
			1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

. 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 sue 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 & annot 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 nount. 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 \*

Analysed by

e not accredited by NABL.

**Authorized Signatory** 

B.Chimna Lingana Gouda Chief executive of the laboratory



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



MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020532F

Report Issued Date: 05.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Vysanakere Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

01.11.2022

Date of Sample Receipt **Analysis Starting Date** 

02.11.2022 05.11.2022

**Analysis Completion Date** Sample Tested as Received

S.No	Parameter	Protocols	Shi	ift wise res	sults	Units	Result	Toleranc
			1	2	3	Omes	in Avg.	e limits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	52.3	53.4	51.6	μg / m³	52.4	100
2	Particulate Matter or PM <sub>2.5</sub> μg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	16.8	17.2	15.9	µg / m³	16.6	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	10.3	11.3	11.5	μg / m³	11.0	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) - 2006	15.5	15.8	15.7	μg / m³	15.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.8	8.7	8.6	μg / m³	8.7	100
6	Lead	IS-5182(Part22) - 2004	0.024	0.023	0.022	μg / m³	0.0	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.28	0.29	0.27	mg/m³	0.3	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.28	1.27	1.26	ng/m³	1.33	20

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

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

<sup>2.</sup> 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

<sup>3.</sup> 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.

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10617

Report Issued Date: 05.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Vysanakere Village MSV Analytical Laboratories, Bellary.

3. Sample Collected By Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt **Analysis Starting Date** 

01.11.2022

02.11.2022

**Analysis Completion Date** 

: 05.11.2022

8.	Sam	ple	T	ested	as	Received	
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S.No	Parameter	Protocols	Shift wise results			Units	Result in	Tolerance
			1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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





Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)

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



MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020531F

Report Issued Date: 05.11.2022

1. Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt **Analysis Starting Date** 

01.11.2022

**Gunda Village** 

**Analysis Completion Date** 

02.11.2022 : 05.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise res	ults	Units	Result	Tolerance limits
			1	2	3		in Avg.	
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) – 2006	55.2	51.0	50.6	μg / m³	52.3	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	20.1	19.2	18.1	μg / m³	19.1	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	8.5	7.6	6.5	μg / m³	7.5	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	77.2	85.2	15.1	μg / m³	59.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.5	8.4	8.3	μg / m <sup>3</sup>	8.4	100
6	Lead	IS-5182(Part22) - 2004	0.038	0.037	0.036	μg / m³	0.00	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.28	0.29	0.27	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.21	1.20	1.19	ng/m³	1.22	20

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

le: 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

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.



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Sanganakallu Road, KEB Circle, Bellary-583103. Contact No: Mob: 94498 03895, (0): 08392-255169,

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10616

Report Issued Date: 05.11.2022

1. Name of the Project

: 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

3. Sample Collected By

: Gunda Village

MSV Analytical Laboratories, Bellary.

4. Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

01.11.2022

6. Analysis Starting Date

02.11.2022

7. Analysis Completion Date

: 05.11.2022

8. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
			1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

Analysed by

EIDAN AND

Authorized Signatory

B.Chinna Lingana Gouda Chief executive of the laboratory



2nd Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL

(Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015) 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, (0) : 08392-255169,

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



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020802F

Report Issued Date: 14.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

**Smiore Colony** Name of the location

MSV Analytical Laboratories, Bellary. Sample Collected By

Sample collected with RDS APM460 and FDS GTI-131 Particulars of the sample

09.11.2022 Date of Sample Receipt 10.11.2022 **Analysis Starting Date** 14.11.2022 **Analysis Completion Date** 

	8. Sample Tested as Received  Parameter Protocols		Shift wise results		Units	Result in	Tolerance limits	
S.No		Protocois	1	2	3		Avg.	m. 40.000 miles - 00.000
1	Particulate Matter PM <sub>10</sub> µg/m³	IS-5182(Part-23) - 2006	54.2	53.3	52.4	μg / m³	53.3	100
2	Particulate Matter or	LAB SOP MSVAL/SOP/A/005	19.4	18.6	17.4	$\mu g / m^3$	18.5	. 60
 3	PM <sub>2.5</sub> μg/m <sup>3</sup> Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	11.0	10.0	9.2	μg / m³	10.1	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	13.8	13.2	12.1	μg / m³	13.0	80
т	NO <sub>x</sub>	IS 5182(part-9)1974	12.2	11.2	10.3	μg / m³	11.2	100
5	Ozone as O <sub>3</sub>	IS-5182(Part22) -	0.03	0.03	0.03	μg / m³	0.00	1
6	Lead  Carbon Monoxide as	LAB SOP	12.2	11.2	10.2	mg/m³	11.2	2
7	CO Ammonia as NH <sub>3</sub>	MSVAL/SOP/A/007 LAB SOP	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	MSVAL/SOP/A/006 LAB SOP MSVAL/SOP/A/008	1.02	1.02	1.02	ng / m³	1.0	20

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

Analysed by

**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 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

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.



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E-mail: msv.lab01@gmail.com, Labmsv@gmail.com, Website: www.msvalbellarv.com

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10909

Report Issued Date: 14.11.2022

1. Name of the Project

: 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** 

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample 5. Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131 09.11.2022

6. Analysis Starting Date

10.11.2022

**Analysis Completion Date** 7.

14.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Protocols Shift wise results				Result in	Tolerance
5.110	T at a meter	1	1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

Analysed by

0 9000

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

<sup>1.</sup> 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 callibrations marked with an \* are not accredited by NABL.



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



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020805F

Report Issued Date: 14.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131 09.11.2022

5. **Analysis Starting Date** 

10.11.2022 : 14.11.2022

**Analysis Completion Date** Sample Tested as Received

	Parameter	eceived Protocols	Shift	wise resu	ilts	Units	Result in Avg.	Tolerance limits
S.No		Protocois	1	2	3	1		
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	48.2	47.3	46.3	μg / m³	47.3	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	20.2	19.4	17.8	μg / m³	19.1	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	10.1	9.3	10.3	μg / m³	9.9	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	14.8	13.8	14.3	μg / m³	14.3	80
Total Control	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.3	8.2	8.1	μg / m³	8.2	100
5 6	Lead	IS-5182(Part22) - 2004	0.21	0.21	0.21	μg / m³	0.2	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.25	0.24	0.23	mg/m³	0.2	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.09	1.09	1.09	ng / m³	1.1	20

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

Analysed by

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

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



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Sanganakallu Road, KEB Circle, Bellary-583103. Contact No : Mob : 94498 03895, (0) : 08392-255169,

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10912

Report Issued Date: 14.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt
 Analysis Starting Date

09.11.2022 10.11.2022

7. Analysis Completion Date

: 14.11.2022

8. Sample Tested as Received

	Parameter	Protocols	Shift wise results			Units	Result in	Tolerance limits
S.No	Parameter	1100003	1	2	3		Avg.	
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	6

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

Analysed by

AL LABORETORS

B.Chihna Lingana Gouda
Chief executive of the laboratory

<sup>1.</sup> 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 1month 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020804F

Report Issued Date: 14.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

Vysanakere Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

3. Particulars of the sample **Date of Sample Receipt** 

09.11.2022

**Analysis Starting Date** 6. **Analysis Completion Date**  10.11.2022 14.11.2022

		eceived Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No	Parameter	Frotocols	1	2	3			
1	Particulate Matter	IS-5182(Part-23) - 2006	60.2	59.4	58.6	μg / m³	59.4	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	24.2	23.2	22.4	μg / m³	23.3	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	14.8	14.0	13.0	μg / m³	13.9	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	17.8	16.8	16.2	μg / m³	16.9	80
9546	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	9.4	9.2	9.0	μg / m³	9.2	100
5 6	Lead	IS-5182(Part22) - 2004	0.34	0.34	0.34	μg / m³	0.33	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.44	0.42	0.40	mg/m³	0.44	2
8	CO Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m <sup>3</sup>	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.30	1.30	1.30	ng / m³	1.33	20

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

Analysed by

Authorized Signator B.Chimna Lingana Gouda Chief executive of the laboratory

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.



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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10911

Report Issued Date: 14.11.2022

1. Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Vysanakere Village

Sample Collected By

Arsenic as As

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

09.11.2022

**Analysis Starting Date** 

10.11.2022 14.11.2022

**Analysis Completion Date** Sample Tested as Received

	8. Sample Tested a	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocols	1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
	Benzo (α) Pyrene	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
11_	(BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

Analysed by

12

**CPCB** Procedure

**Authorized Signatory** - W. h B.Chinna Lingana Gouda Chief executive of the laboratory

<sup>1.</sup> 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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E-mail: msv.lab01@gmail.com, Labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000020803F

Report Issued Date: 14.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Gunda Village** 

MSV Analytical Laboratories, Bellary.

Sample Collected By 3. Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

**Date of Sample Receipt** 5. 6. Analysis Starting Date

09.11.2022 10.11.2022

**Analysis Completion Date** 7.

: 14.11.2022

		Protocols	Shift wise results		Units	Result in Avg.	Tolerance limits	
S.No	Parameter	Protocois	1	2	3			
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	54.3	53.2	51.0	μg / m³	52.8	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	15.0	14.8	13.0	μg / m³	14.3	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	7.3	5.9	5.2	μg / m³	6.1	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	11.1	10.0	8.9	μg / m³	10.0	80
	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	7.7	7.6	7.4	μg / m³	7.6	100
5 6	Lead	IS-5182(Part22) - 2004	0.017	0.017	0.017	μg / m³	0.11	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.21	0.20	0.18	mg/m³	0.22	2
8	CO Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m <sup>3</sup>	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.22	1.22	1.22	ng / m³	1.22	20

INFERENCE

As per NAAQS Standards

Report Status:- The analyzed values for above measured parameter are within the limits

Jane?

B.Chinna Lingana Gouda Chief executive of the laboratory

<sup>1.</sup> 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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E-mail: msv.lab01@gmail.com, Labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/10910

Report Issued Date: 14.11.2022

1. Name of the Project

: 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 sample

: Sample collected with RDS APM460 and FDS GTI-131 : 09.11.2022

5. Date of Sample Receipt6. Analysis Starting Date

: 10.11.2022

7. Analysis Completion Date

14.11.2022

8. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
5.140		11000015	1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

Authorized Signatory

B.Chinna Lingana Gouda Chief executive of the laboratory

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



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021030F

Report Issued Date: 17.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Smiore Colony** 

Sample Collected By

MSV Analytical Laboratories, Bellary. Sample collected with RDS APM460 and FDS GTI-131

Particulars of the sample Date of Sample Receipt

12.11.2022

**Analysis Starting Date Analysis Completion Date**  14.11.2022 17.11.2022

Sample Tested as Received

	10	Postsonia	Shift wise results			Units	Result	Tolerance limits
S.No	Parameter	Protocols	1	2	3	1401.00100	in Avg.	Illines
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	60.4	59.2	58.4	μg / m³	59.3	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	21.2	20.4	19.7	μg / m³	20.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	11.9	11.6	10.0	μg / m³	11.2	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	18.4	16.7	16.0	μg / m³	17.0	80
_	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	12.6	11.4	11.2	μg / m³	11.7	100
5 6	Lead	IS-5182(Part22) - 2004	11.9	11.6	10.0	μg / m³	11.2	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.42	0.40	0.39	mg/m³	0.4	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.30	1.31	1.35	ng/m³	1.33	20

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

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

2. Water samples will destroyed after 10days, Filter papers & Thimbies 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.



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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20005

Report Issued Date: 17.11.2022

1. Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131 12.11.2022

5. Date of Sample Receipt6. Analysis Starting Date

: 14.11.2022 : 17.11.2022

7. Analysis Completion Date

Sample Tested as Received

Shift wise results Tolerance Result in Units Protocols S.No Parameter limits Avg. 3 1 IS:5182(part 11) -< 0.01 5 < 0.01 < 0.01 < 0.01  $\mu g / m^3$ 10 Benzene as C<sub>6</sub>H<sub>6</sub> 2006 Benzo (a) Pyrene < 0.01 < 0.01 1 < 0.01 < 0.01 ng / m<sup>3</sup> **CPCB** Procedure 11 (BaP) < 0.01 < 0.01 < 0.01 ng / m3 < 0.01 6 Arsenic as As **CPCB** Procedure 12

INFERENCE
-----------

Analysed by

**Authorized Signatory** 

B.Chimna Lingana Gouda Chief executive of the laboratory

<sup>1.</sup> 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 1month 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.



Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)

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MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021033F

Report Issued Date: 17.11.2022

1. Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant) Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

**Date of Sample Receipt Analysis Starting Date** 

12.11.2022 14.11.2022

**Analysis Completion Date** 

: 17.11.2022

	8. Sample Tested as R		Shift wise results			Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocols	1	2	3			
1	Particulate Matter	IS-5182(Part-23) - 2006	56.2	55.3	54.2	μg / m³	55.2	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	16.4	15.2	14.3	μg / m³	15.3	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	8.6	7.2	6.3	μg / m³	7.4	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	17.2	16.0	14.9	μg / m³	16.0	80
		IS 5182(part-9)1974	9.8	9.4	9.0	$\mu g / m^3$	9.4	100
5 6	Ozone as O <sub>3</sub>	IS-5182(Part22) - 2004	0.036	0.035	0.034	μg / m³	0.11	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.34	0.32	0.30	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.24	1.25	1.26	ng / m³	1.33	20

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

Analysed by

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

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

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.



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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20007

Report Issued Date: 17.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt6. Analysis Starting Date

12.11.2022 14.11.2022

7. Analysis Completion Date

17.11.2022

8. Sample Tested as Received

S.No	Parameter	Shift wise results			Units	Result in	Tolerance limits	
3.140			1	2	3		Avg.	mints
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	6

	1970 CARRESTO 400 AND 15
INFERENCE	As per NAAQS Standards Report Status:- The analyzed values for above measured parameter are within the limits

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

Analysed by

are not accredited by NABL.

Authorized Signatory

B.C. inna Lingana Gouda Chief executive of the laboratory



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 08392-255169, E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021032F

Report Issued Date: 17.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location : Vysanakere Village

Sample Collected By : MSV Analytical Laboratories, Bellary.

Sample Collected By
 Particulars of the sample

: 12.11.2022

5. Date of Sample Receipt6. Analysis Starting Date

: 14.11.2022 : 17.11.2022

Analysis Completion Date
Sample Tested as Received

	8. Sample Tested as R	Protocols	Shift	wise resu	lts	Units	Result in Avg.	Toleranc e limits
S.No	Parameter	Protocois	1	2	3			
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	62.5	61.2	60.0	μg / m³	61.2	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	19.6	18.4	17.4	μg / m³	18.5	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	11.0	10.	9.2	μg / m³	10.1	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	18.4	16.8	16.0	μg / m³	17.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	12.2	12.0	11.8	μg / m³	12.0	100
6	Lead	IS-5182(Part22) - 2004	0.032	0.031	0.035	μg / m³	0.11	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.38	0.36	0.34	mg/m³	0.44	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.3	1.32	1.36	ng/m³	1.33	20

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

Analysed by

BOLLARI PAR OF REPORTS Authorized Signatory

B.Clinna Lingana Gouda

Chief executive of the laboratory

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

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.



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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20008

Report Issued Date: 17.11.2022

1. Name of the Project

: 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

Sample Collected By

MSV Analytical Laboratories, Bellary. Sample collected with RDS APM460 and FDS GTI-131

Particulars of the sample

12.11.2022

Date of Sample Receipt 6. Analysis Starting Date

: 14.11.2022

**Analysis Completion Date** 

Sample Tested as Received

: 17.11.2022

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
3.110		Trococois	1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

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

<sup>1.</sup> 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021031F

Report Issued Date: 17.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Gunda Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131 12.11.2022

**Analysis Starting Date Analysis Completion Date**  14.11.2022 17.11.2022

	8. Sample Tested as R	Shift wise results		lts	Units	Result in Avg.	Tolerance limits	
S.No	Parameter	Fiotocols	1	2	3		m.r.g.	
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	54.8	53.7	52.4	μg / m³	53.6	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	15.7	14.6	13.2	μg / m³	14.5	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	8.7	7.1	5.8	μg / m³	7.2	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	17.2	16.0	15.4	μg / m³	16.2	80
	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.6	7.4	7.2	μg / m³	7.7	100
5 6	Lead	IS-5182(Part22) - 2004	0.045	0.046	0.047	μg / m³	0.44	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.32	0.30	0.28	mg/m³	0.33	2
8	CO Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.35	1.34	1.38	ng/m³	1.44	20

INFERENCE

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

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

2. Water samples will destroyed after 10days, Filter papers & Thimbies 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.



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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20006

Report Issued Date: 17.11.2022

1. Name of the Project

: 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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

12.11.2022

6. Analysis Starting Date

14.11.2022

7. Analysis Completion Date

: 17.11.2022

8. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results		Units	Result in	Tolerance	
			1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / 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

ger True

<sup>1.</sup> 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 1month 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, (0) : 08392-255169,

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



TC-7207

MSVAL/A/F/16/03 \*\*

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021069F

Report Issued Date: 18.11.2022

1. Name of the Project

: 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

Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Particulars of the sample 5. Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt
 Analysis Starting Date

14.11.2022 15.11.2022

7. Analysis Completion Date

18.11.2022

S.No	Parameter	Protocols	Shift wise results			Units	Result	Tolerance
			1	2	3	Jonnes	in Avg.	limits
1	Particulate Matter PM <sub>10</sub> μg/m <sup>3</sup>	IS-5182(Part-23) - 2006	57.1	57.4	58.2	μg / m³	57.6	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	21.2	21.8	22.2	μg / m³	21.7	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) – 2001	11.25	11.55	12.25	μg / m³	11.7	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	20.2	20.6	21.2	μg / m³	20.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	11.8	12.2	12.4	μg / m³	12.1	100
6	Lead	IS-5182(Part22) – 2004	0.026	0.027	0.025	μg / m³	0.22	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.44	0.46	0.42	mg/m³	0.44	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.09	1.08	1.07	ng/m³	1.1	20

INFERENCE

As per NAAQS Standards

Report Status:- The analyzed values for above measured parameter are within the limits

Analysed by





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

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

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.

<sup>3.</sup> 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.

Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
 Sampling is not done by us unless otherwise specified.
 The tests and/or calibrations marked with an are not accredited by NABL.



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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20075

Report Issued Date: 18.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt 6. Analysis Starting Date : 14.11.2022 : 15.11.2022

7. Analysis Completion Date

: 18.11.2022

8. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise res		Shift wise results		Shift wise results		Result in	Tolerance
3.NO	i ai ainetei	1100000	1	2	3	Units	Avg.	limits		
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5		
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1		
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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

<sup>1.</sup> 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 1month 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021072F

Report Issued Date: 18.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt 5. **Analysis Starting Date** 

14.11.2022 : 15.11.2022

**Analysis Completion Date** 

: 18.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result in Avg.	Tolerance limits
0		3.3.3.3.3.3.	1	2	3	*		
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	55.2	50.2	56.8	μg / m³	54.1	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	18.2	18.8	19.4	μg / m³	18.8	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	7.8	8.45	9.05	μg / m³	8.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	14.2	14.65	15.2	μg / m³	14.7	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	7.4	7.6	7.2	μg / m³	7.4	100
6	Lead	IS-5182(Part22) - 2004	0.018	0.019	0.016	μg / m³	0.11	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.30	0.32	0.28	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.23	1.24	1.22	ng / m³	1.2	20

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

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.



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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20078

Report Issued Date: 18.11.2022

1. Name of the Project

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 sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt
 Analysis Starting Date

14.11.2022 15.11.2022

7. Analysis Completion Date

: 18.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
3.NO	Tarameter	1.00000	1	2	3		Avg.	IIIII
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	6

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

ge

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

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 1month 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021071F

Report Issued Date: 18.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4. Date of Sample Receipt 5.

14.11.2022

**Analysis Starting Date** 6. **Analysis Completion Date** 7.

15.11.2022 18.11.2022

		eceived Protocols	Shift	wise resu	lts	Units	Result in Avg.	Tolerance limits
s.No	Parameter	Flotocois	1	2	3			
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	53.5	54.2	54.8	μg / m³	54.2	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	19.8	20.2	21.2	μg / m³	20.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	11.55	11.95	12.55	μg / m³	12.0	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	13.4	14.2	14.6	μg / m³	14.1	80
	NOx	IS 5182(part-9)1974	8.3	8.5	8.7	$\mu g / m^3$	8.5	100
5	Ozone as O <sub>3</sub>		0.0			, ,	0.22	1
6	Lead	IS-5182(Part22) - 2004	0.022	0.024	0.020	μg / m³	0.22	
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.20	0.22	0.18	mg/m³	0.22	2
8	CO Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.18	1.19	1.16	ng/m³	1.2	20

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

Analysed by



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

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

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20077

Report Issued Date: 18.11.2022

1. Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Vysanakere Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

**Date of Sample Receipt** 

14.11.2022 15.11.2022

**Analysis Starting Date Analysis Completion Date** 

: 18.11.2022

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
		Fiotocols	1	2	3		Avg.	
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene	CPCB Procedure	<0.01	<0.01	<0.01	ng / m <sup>3</sup>	<0.01	1
12	(BaP) Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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

<sup>1.</sup> 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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MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021070F

Report Issued Date: 18.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

**Gunda Village** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt **Analysis Starting Date** 6. **Analysis Completion Date** 

14.11.2022 15.11.2022 : 18.11.2022

7.

Sample Tested as Received Tolerance Shift wise results Result Units in Avg. limits Protocols Parameter S.No 3 1 100 IS-5182(Part-23) -55.7  $\mu g / m^3$ Particulate Matter 55.5 56.2 55.1 1 2006 PM<sub>10</sub> μg/m<sup>3</sup> 60 15.7 LAB SOP 16.2  $\mu g / m^3$ 15.6 Particulate Matter or 15.2 2 MSVAL/SOP/A/005  $PM_{2.5} \mu g/m^3$ 80 IS-5182(Part-2) -8.9 9.45  $\mu g / m^3$ 8.8 8 45 Sulphur Dioxide as SOx 3 2001 80  $\mu g / m^3$ 11.7 IS-5182(Part-6) -12.2 Oxides of Nitrogen as 11.6 11.2 4 2006 NO<sub>x</sub>  $\mu g / m^3$ 9.1 100 9.2 9.4 8.8 IS 5182(part-9)1974 Ozone as O3 5 1 0.11 IS-5182(Part22) - $\mu g / m^3$ 0.011 0.013 0.012 Lead 6 2004 2 LAB SOP 0.22 0.20  $mg/m^3$ 0.24 Carbon Monoxide as 0.22 MSVAL/SOP/A/007 7 CO 400 < 0.01 LAB SOP < 0.01  $\mu g / m^3$ < 0.01 < 0.01 Ammonia as NH<sub>3</sub> MSVAL/SOP/A/006 8 1.1 20  $ng/m^3$ LAB SOP 1.11 1.09 1.10 Nickel as Ni MSVAL/SOP/A/008 9

INFERENCE

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

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 Note: 1. The results listed only to the tested samples & applicable parameters, 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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E-mail: msv.lab01@gmail.com, Labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20076

Report Issued Date: 18.11.2022

1. Name of the Project

: 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 sample
5. Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131 14.11.2022

6. Analysis Starting Date

: 15.11.2022

7. Analysis Completion Date

18.11.2022

8. Sample Tested as Received

S.No	Parameter	Shift wise results			Units	Result in	Tolerance limits	
3.110	Tarameter		1	2	3		Avg.	IIIIIG
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

Analysed by

END OF REPORTS

B.Chinna Lingana Gouda
Chief executive of the laboratory

<sup>1.</sup> 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 1month 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022282F

Report Issued Date: 21.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Smiore Colony** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

**Date of Sample Receipt** 5. **Analysis Starting Date** 

16.11.2022 17.11.2022 :

**Analysis Completion Date** 

21.11.2022

S.No	Parameter	Protocols	Shif	ft wise resi	ults	Units	Result	Tolerance limits
2.NO	Parameter	Protocois	1	2	3		in Avg.	
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	71.2	73.4	70.6	μg / m³	71.7	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	23.4	24.5	22.3	$\mu g / m^3$	23.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	19.1	19.9	18.4	μg / m³	19.1	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	21.2	21.9	20.1	μg / m³	21.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	0.41	0.42	0.40	μg / m³	0.44	100
6	Lead	IS-5182(Part22) - 2004	0.035	0.034	0.033	μg / m³	0.33	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.41	0.42	0.40	mg/m³	0.44	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.2	1.1	1.0	ng/m³	1.11	20

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

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.



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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20206

Report Issued Date: 21.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt6. Analysis Starting Date

: 16.11.2022 : 17.11.2022

7. Analysis Completion Date

21.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
		Frotocols	1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / 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

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 1month 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022285F

Report Issued Date: 21.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131 16.11.2022

**Analysis Starting Date Analysis Completion Date** 

17.11.2022 . 21.11.2022

		Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No	Parameter		1	2	3		mary.	
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	55.4	56.3	54.3	μg / m³	55.3	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	16.8	17.9	15.7	μg / m³	16.8	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	7.7	8.4	6.7	μg / m³	7.6	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	16.3	17.5	15.1	μg / m³	16.3	80
-	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.1	8.0	7.9	μg / m³	8.0	100
5 6	Lead	IS-5182(Part22) - 2004	0.020	0.019	0.018	μg / m³	0.22	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.28	0.29	0.26	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.12	1.11	1.10	ng / m³	1.11	20

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

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

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.



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Sanganakallu Road, KEB Circle, Bellary-583103. Contact No : Mob : 94498 03895, (0) : 08392-255169,

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20209

Report Issued Date: 21.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

16.11.2022

6. Analysis Starting Date7. Analysis Completion Date

: 17.11.2022

Analysis Completion Date
 Sample Tested as Received

: 21.11.2022

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
	Farameter	1 Total 1	1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / 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.Chima Lingana Gouda
Chief executive of the laboratory

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 1month 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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E-mail:msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022284F

Report Issued Date: 21.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

16.11.2022

Date of Sample Receipt 5. **Analysis Starting Date** 6. **Analysis Completion Date** 

17.11.2022 21.11.2022

	8. Sample Tested as R	Protocols	Shift	wise resul	its	Units	Result in Avg.	Tolerance limits	
S.No		Protocols	1	2	3				
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	51.4	52.6	50.2	μg / m³	51.4	100	
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	15.8	16.7	14.4	μg / m³	15.6	60	
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	5.6	8.7	6.7	μg / m³	7.0	80	
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	12.8	14.0	11.8	μg / m³	12.9	80	
		IS 5182(part-9)1974	6.2	6.1	6.0	μg / m³	6.1	100	
5 6	Ozone as O <sub>3</sub>	IS-5182(Part22) - 2004	0.013	0.012	0.01	μg / m³	0.11	1	
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.21	0.23	0.20	mg/m³	0.22	2	
8	CO Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m³	<0.01	400	
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.16	1.15	1.14	ng/m³	1.22	20	

INFERENCE	As per NAAQS Standards	bove measured parameter are within the limits

Analysed by

**Authorized Signatory** 4.2 B.Chinna Lingana Gouda Chief executive of the laboratory

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

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.



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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20208

Report Issued Date: 21.11.2022

1. Name of the Project

: 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 By4. Particulars of the sample

MSV Analytical Laboratories, Bellary.

5. Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131 16.11.2022

6. Analysis Starting Date

17.11.2022

7. Analysis Completion Date

21.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
3.110	1 ai ainetei		1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	6

INTERPRICE	As per NAAQS Standards
INFERENCE	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

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 1month 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022283F

Report Issued Date: 21.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

**Gunda Village** 

Sample Collected By 3. Particulars of the sample MSV Analytical Laboratories, Bellary. Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

16.11.2022 17.11.2022

**Analysis Starting Date Analysis Completion Date** 

: 21.11.2022

	Parameter	Protocols	Shift	wise resul	ts	Units	Result in Avg.	Tolerance limits
S.No		Protocois	1	2	3			
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	54.2	55.4	53.1	μg / m³	54.2	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	18.2	19.6	17.4	μg / m <sup>3</sup>	18.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	9.1	9.9	8.4	μg / m³	9.1	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	16.3	17.5	14.7	$\mu g / m^3$	16.2	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	7.2	7.1	7.0	μg / m³	7.1	100
6	Lead	IS-5182(Part22) - 2004	0.024	0.023	0.022	μg / m³	0.22	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.17	0.19	0.16	mg/m³	0.22	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.16	1.15	1.14	ng / m³	1.22	20

INFERENCE

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

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

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.



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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20207

Report Issued Date: 21.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Gunda Village** 

MSV Analytical Laboratories, Bellary.

Sample Collected By

Sample collected with RDS APM460 and FDS GTI-131

Particulars of the sample Date of Sample Receipt

16.11.2022

**Analysis Starting Date** 

17.11.2022

**Analysis Completion Date** 

: 21.11.2022

Sample Tested as Received

	Parameter	Protocols	Sh	ift wise re	sults	Units Result in Avg.		Tolerance limits
S.No		Frotocois	1	2	3		11.6.	0.787.00.002
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	1
12	(BaP) Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

INFERENCE	As per NAAQS Standards
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

<sup>1.</sup> 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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MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022282F

Report Issued Date:

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

. Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Smiore Colony** 

Sample Collected By Particulars of the sample MSV Analytical Laboratories, Bellary.

**Date of Sample Receipt** 

Sample collected with RDS APM460 and FDS GTI-131 16.11.2022

**Analysis Starting Date Analysis Completion Date** 

17.11.2022 21.11.2022

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result	Tolerance
		15.7	1	2	3	Joines	in Avg.	limits
1	Particulate Matter PM <sub>10</sub> µg/m³	IS-5182(Part-23) - 2006	55.6	56.7	54.5	μg / m³	55.6	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	27.8	28.9	26.3	μg / m³	27.7	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 20018.7	8.7	9.5	7.5	μg / m³	8.6	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	16.9	18.2	11.1	µg / m³	15.4	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.1	8.0	7.9	μg / m³	8.0	100
6	Lead	IS-5182(Part22) - 2004	0.021	0.020	0.019	μg / m <sup>3</sup>	0.22	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.21	0.23	0.20	mg/m³	0.44	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.10	1.19	1.18	ng/m³	1.2	20

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

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.



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

MSVAL/A/F/16/03

#### **ANALYSIS REPORT OF AMBIENT AIR QUALITY**

Test Report No: MSVAL/2022/20207

Report Issued Date: 21.11.2022

1. Name of the Project

: 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

;

3. Sample Collected By

Smiore ColonyMSV Analytical Laboratories, Bellary.

4. Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt6. Analysis Starting Date

16.11.2022

7. Analysis Starting Date

: 17.11.2022 : 21.11.2022

8. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	linits	Result in	Tolerance limits
	A.		1	2	3		Avg.	
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	< 0.01	6

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

Analysed by

BAIDARI E

Authorized Signatory

B.Chinda Lingana Gouda

Chief executive of the laboratory

. 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 ssue of test certificate unless otherwise specified. ILC sample will be destroyed after 1month from the date of test certificate issue. 3. This report is not to be reproduced wholly or in part & annot 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 re not accredited by NABL.



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

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

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 08392-255169,

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



MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022285F

Report Issued Date: 21.11.2022

1. Name of the Project

: 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.

Particulars of the sample
 Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131

6. Analysis Starting Date

16.11.2022 17.11.2022

7. Analysis Completion Date

: 21.11.2022

3. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Units Result	
		Control (Elizabeth Statement) sheets	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	58.6	59.7	57.4	μg / m³	58.6	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	23.2	24.5	22.2	μg / m³	23.3	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) – 2001	15.4	16.6	14.2	µg / m³	15.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	17.5	17.6	16.3	µg / m³	17.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	9.8	9.7	9.6	μg / m³	9.7	100
6	Lead	IS-5182(Part22) – 2004	0.039	0.038	0.037	µg / m³	0.33	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.33	0.30	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.23	1.22	1.21	ng / m³	1.2	20

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

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

2. Water samples will destroyed after 10days, Filter papers & Thimbies 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.



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E-mail: msv.lab01@gmail.com, Labmsv@gmail.com, Website: www.msvalbellarv.com

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20210

Report Issued Date: 21.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

: 16.11.2022

6. Analysis Starting Date7. Analysis Completion Date

: 17.11.2022 : 21.11.2022

. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units Result in		Tolerance
			1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

Authorized Signatory

B.Chmna Lingana Gouda Chief executive of the laboratory

<sup>1.</sup> 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 1month 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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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022284F

Report Issued Date: 21.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location Vysanakere Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131 16.11.2022

Date of Sample Receipt **Analysis Starting Date Analysis Completion Date** 

: 17.11.2022 21.11.2022

8.	Sample	Tested as	Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result	Toleranc
			1	2	3	7	in Avg.	e limits
1	Particulate Matter PM <sub>10</sub> μg/m <sup>3</sup>	IS-5182(Part-23) – 2006	60.8	59.6	58.6	μg / m³	59.7	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	15.9	14.8	13.7	μg / m³	14.8	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	13.3	12.5	11.6	μg / m³	12.5	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	21.9	20.7	25.1	μg / m³	22.6	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	9.8	9.7	9.6	μg / m³	9.7	100
6	Lead	IS-5182(Part22) - 2004	0.027	0.026	0.025	μg / m³	0.22	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.35	0.34	0.33	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	µg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.23	1.22	1.20	ng/m³	1.2	20

INFERENCE

As per NAAQS Standards

Report Status :- The analyzed values for above measured parameter are within the limits



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 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.



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Sanganakallu Road, KEB Circle, Bellary-583103. Contact No : Mob : 94498 03895, (0) : 08392-255169,

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20209

Report Issued Date: 21.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt6. Analysis Starting Date

: 16.11.2022 : 17.11.2022

7. Analysis Completion Date

: 21.11.2022

8. Sample Tested as Received

C No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No		Trotocois	1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

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

-: ENDOF REPORT:

B.Chinna Lingana Gouda
Chief executive of the laboratory

<sup>1.</sup> 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 1month 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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MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022283F

Report Issued Date: 21.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Gunda Village** 

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt 6. Analysis Starting Date

16.11.2022 17.11.2022 21.11.2022

**Analysis Completion Date** 7. Sample Tested as Received

		Protocols	Shift	wise resu	lts	Units	Result in Avg.	Tolerance limits	
S.No	Parameter	Trotocois	1/	2	3		III Avg.	Innes	
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	58.6	59.7	57.7	μg / m³	58.7	100	
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	17.2	18.4	16.4	μg / m³	17.3	60	
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	13.2	14.3	12.6	μg / m³	13.4	80	
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	17.1	18.2	16.3	μg / m³	17.2	80	
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.1	8.0	7.9	μg / m³	8.0	100	
6	Lead	IS-5182(Part22) - 2004	0.023	0.022	0.021	μg / m³	0.22	1	
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.41	0.43	0.40	mg/m³	0.44	2	
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400	
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.31	1.30	1.32	ng / m³	1.3	20	

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

**Authorized Signatory** B.Chimna Lingana Gouda Chief executive of the laboratory

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 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.



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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20208

Report Issued Date: 21.11.2022 M/s. The Sandur Manganese & Iron Ores Ltd.

1. Name of the Project

(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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt6. Analysis Starting Date

: 16.11.2022 : 17.11.2022

7. Analysis Completion Date

: 21.11.2022

8. Sample Tested as Received

	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No		Frotocols	1	2	3		Avg	
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	1
12	(BaP) Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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

1. The results listed only to the tested samples & applicable parameters, 2. Water samples will destroyed after 10days, Filter papers & Thimbies will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1month 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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MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022682F

Report Issued Date: 28.11.2022 : M/s. The Sandur Manganese & Iron Ores Ltd.

1. Name of the Project

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Smiore Colony** 

3. Sample Collected By MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt **Analysis Starting Date Analysis Completion Date**  23.11.2022 24.11.2022 28.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance limits
5			1	2	3		in Avg.	lillits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	62.1	63.4	61.1	μg / m³	62.2	100
2	Particulate Matter or PM <sub>2.5</sub> μg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	21.1	22.1	20.1	μg / m³	21.1	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	10.7	11.8	10.6	μg / m³	11.0	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) - 2006	17.8	19.2	17.3	μg / m³	18.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	10.3	10.2	10.1	μg / m³	10.2	100
6	Lead	IS-5182(Part22) - 2004	0.08	0.07	0.06	μg / m³	0.11	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.22	0.21	0.20	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.21	1.20	1.19	ng/m³	1.22	20

INFERENCE

As per NAAQS Standards

values for above measured parameter are within the limits Report Status :- The

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,

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.



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MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20419

Report Issued Date: 28.11.2022

1. Name of the Project

: 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 sample

: Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

: 23.11.2022

6. Analysis Starting Date

: 24.11.2022 : 28.11.2022

. Analysis Completion Date

Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in	Tolerance
:= 11122-201			1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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:-

<sup>1.</sup> 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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MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022685F

Report Issued Date: 28.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4. 5. Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131

6. Analysis Starting Date 7. Analysis Completion Date 23.11.2022 24.11.2022

28.11.2022

		Received Protocols	Shift	wise resu	lts	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocois	1	2	3			
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	55.2	54.3	53.2	μg / m³	54.2	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	16.4	15.6	14.5	μg / m³	15.5	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	10.1	9.1	8.5	μg / m³	9.2	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	15.6	14.9	13.8	μg / m³	14.8	80
	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.3	8.2	8.1	μg / m³	8.2	100
<u>5</u> 6	Lead	IS-5182(Part22) - 2004	0.023	0.022	0.021	μg / m³	0.22	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.27	0.26	0.25	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.83	1.82	1.80	ng/m³	1.8	20

INFERENCE

As per NAAQS Standards

Report Status:- The analyzed values for above measured parameter are within the limits

Analysed by



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

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

2. Water samples will destroyed after 10days, Fifter papers & Thimbies 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.



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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20422

Report Issued Date: 28.11.2022

1. Name of the Project

: 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

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Particulars of the sample Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt 23.11.2022

6. Analysis Starting Date **Analysis Completion Date**  24.11.2022 28.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
			-1	2	3			
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

INFERENCE

As per NAAOS Standards

Report Status:- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory · Culile

B.Chima Lingana Gouda Chief executive of the laboratory

-: END OF REPORT:-

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, (0) : 08392-255169,

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



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022684F

Report Issued Date: 28.11.2022

1. Name of the Project

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

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt **Analysis Starting Date** 6. 7. **Analysis Completion Date** 

23.11.2022 . 24.11.2022 28.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shi	ift wise res	ults	Units	Result	Toleranc
	5005-6000000000000000000000000000000000		1	2	3	dints	in Avg.	e limits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	54.2	53.2	52.3	μg / m³	53.2	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	18.5	17.2	16.8	μg / m³	17.5	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	9.1	8.5	7.6	μg / m³	8.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) - 2006	14.9	14.2	13.2	μg / m³	14.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.7	8.5	8.3	μg / m³	8.5	100
6	Lead	IS-5182(Part22) - 2004	0.024	0.024	0.025	μg / m³	0.0	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.27	0.25	0.23	mg/m³	0.3	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.38	1.36	1.35	ng/m³	1.44	20

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,

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.



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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, Bellary-583103. Contact No: Mob: 94498 03895, (0): 08392-255169,

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20421

Report Issued Date: 28.11.2022

1. Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet <mark>Tal</mark>uk, Bellary District, Karnataka.

Name of the location

Vysanakere Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt 6. Analysis Starting Date

23.11.2022 24.11.2022

7. Analysis Completion Date

28.11.2022

Sample Tested as Received

Parameter	Protocols	Sh	ift wise r	esults	Unite	Result in Avg.	Tolerance
		1	2	3	Units	Avg.	limits
Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) -	<0.01	<0.01	<0.01	µg / m³	<0.01	5
Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01			3
Arsenic as As	CPCR Procedure	z0.01	0.04			V0.01	1
	Benzene as C <sub>6</sub> H <sub>6</sub> Benzo (α) Pyrene (BaP)	Benzene as C <sub>6</sub> H <sub>6</sub>   IS:5182(part 11) - 2006     Benzo (α) Pyrene (BaP)   CPCB Procedure	Benzene as C <sub>6</sub> H <sub>6</sub>   IS:5182(part 11) - 2006   2006   2001   2006   2001   2006   2001	1   2	1   2   3	Trotocols   1   2   3	Benzene as C <sub>6</sub> H <sub>6</sub>   IS:5182(part 11) - $\frac{1}{2006}$   CPCB Procedure   CPCB Procedure

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

<sup>1.</sup> 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 \*



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TC-7207

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022683F

Report Issued Date: 28.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

**Gunda Village** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131

**Date of Sample Receipt** 5. 6. Analysis Starting Date

23.11.2022 24.11.2022 .

**Analysis Completion Date** Sample Tested as Received 28.11.2022

C N -	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result in Avg.	Tolerance limits
S.No	Parameter	11010010	1	2	3		m Avg.	
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	55.2	54.3	54.1	μg / m³	54.5	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	19.2	18.4	17.1	μg / m³	18.2	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	12.6	11.3	10.2	μg / m³	11.4	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	17.9	17.2	16.2	μg / m³	17.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.9	8.6	8.4	μg / m³	8.6	100
6	Lead *.	IS-5182(Part22) - 2004	0.20	0.21	0.22	μg / m³	0.22	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.26	0.24	0.22	mg/m³	0.22	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.23	1.25	1.29	ng/m³	1.3	20

INFERENCE

As per NAAQS Standards

Report Status:- The analyzed values for above measured parameter are within the limits

Analysed by

**Authorized Signatory** 4.1 B.Chinna Lingana Gouda Chief executive of the laboratory

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.



(Certified by ISO 14001-2004, OHSAS18001-2007, ISO 9001-2008)

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20420

Report Issued Date: 28.11.2022

1. Name of the Project

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

Sample Collected By
 Particulars of the sample

: MSV Analytical Laboratories, Bellary.

4. Particulars of the sample
5. Date of Sample Receipt

Sample collected with RDS APM460 and FDS GTI-131 23.11.2022

6. Analysis Starting Date
7. Analysis Completion Date

24 .11.2022 28 .11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance limits
S.NO	1 at affected	\	1	2	3		Avg.	minus
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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.Chima Lingana Gouda Chief executive of the laboratory

<sup>1.</sup> 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 1month from the date of test certificate issue. 3. This report is not to be reproduced wholly or in particular 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 invoic 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.



Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL (Certified by ISO-14001-2015, ISO 22000-2018, ISO 45001-2018, ISO 9001-2015)

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



MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022804F

Report Issued Date: 29.11.2022

Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

**Smiore Colony** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131 24.11.2022

**Date of Sample Receipt** 5. **Analysis Starting Date** 6.

25.11.2022 29.11.2022

**Analysis Completion Date** 7. Sample Tested as Received

	8. Sample Tested as R		Shift	wise resu	lts	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocols	1	2	3			
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	58.2	55.2	54.6	μg / m³	56.1	100
2	Particulate Matter or	LAB SOP MSVAL/SOP/A/005	22.3	23.4	21.2	μg / m³	22.3	60
3	PM <sub>2.5</sub> μg/m <sup>3</sup> Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	14.4	15.5	13.3	μg / m³	14.4	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	19.4	20.1	18.2	μg / m³	19.2	80
4	NOx		11.2	11.1	11.0	μg / m <sup>3</sup>	11.1	100
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974			0.000	μg / m³	0.33	1
6	Lead	IS-5182(Part22) - 2004	0.082	0.081	0.800	μg / III		-
	Carbon Monoxide as	LAB SOP	0.22	0.23	0.21	mg/m³	0.22	2
7	CO	MSVAL/SOP/A/007			0.01	μg / m³	<0.01	400
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / III		
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.23	1.22	1.21	ng/m³	1.2	20

INFERENCE

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, 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.



Recognition by MoEF under Environment (Protection) Act, 1986 (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20477

Report Issued Date: 29.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Smiore Colony** 

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt **Analysis Starting Date** 

**Parameter** 

24.11.2022 .

**Analysis Completion Date** 

25.11.2022 : 29.11.2022

Sample Tested as Received

Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance
Y	1	2	3		Avg.	limits
IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5

		. 47	1	2	3		Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6

INFERENCE

As per NAAQS Standards

Report Status The analyzed values for above measured parameter are within the limits

Analysed by

S.No

**Authorized Signatory** 1

B.Chinna Lingana Gouda Chief executive of the laboratory

-: END OF REPORT:-

MSVAL/A/F/16/03

lote: 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 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.



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



### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022807F

Report Issued Date: 29.11.2022

Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

3. Sample Collected By MSV Analytical Laboratories, Bellary,

4. Particulars of the sample Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt **Analysis Starting Date** 6.

24.11.2022 25.11.2022

7. **Analysis Completion Date** Sample Tested as Received 29.11.2022

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	49.2	48.3	47.2	μg / m³	48.2	100
2	Particulate Matter or PM <sub>2.5</sub> μg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	18.3	17.2	16.3	μg / m³	17.3	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	9.7	9.6	8.6	μg / m³	9.3	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) - 2006	13.0	12.2	11,6	μg / m³	12.3	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.31	8.30	8.27	μg / m³	8.3	100
6	Lead	IS-5182(Part22) – 2004	0.024	0.023	0.022	μg / m³	0.02	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.29	0.27	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.87	1.86	1.85	ng/m³	1.9	20

INFERENCE

As per NAAQS Standards

Report Status: values for above measured parameter are within the limits

Analysed by

-: END OF REPORT:-

Authorized Signatory

B.Chimna Lingana Gouda Chief executive of the laboratory

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.



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 08392-255169,

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20480

Report Issued Date: 29.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Kallahalli Village

Sample Collected By

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt **Analysis Starting Date** 

24.11.2022 25.11.2022

**Analysis Completion Date** 

29.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.   <0.01	Tolerance
		149/1	1	2	3	-	Avg.	limits
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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:-

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.



Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)





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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022806F

Report Issued Date: 29.11.2022

Name of the Project M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village. Hospet Taluk, Bellary District, Karnataka.

Name of the location Vysanakere Village

Sample Collected By 3. MSV Analytical Laboratories, Bellary.

Particulars of the sample Date of Sample Receipt 5. 24.11.2022 6. **Analysis Starting Date** 25.11.2022 **Analysis Completion Date** 29.11.2022

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Toleranc
		7.0000.0	1	2	3	June	in Avg.	e limits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) – 2006	59.2	58.4	57.2	μg / m³	58.3	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	20.4	19.2	18.1	μg / m³	19.2	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) – 2001	12.1	11.2	10.3	μg / m³	11.2	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) - 2006	15.3	13.7	13.4	μg / m³	14.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	8.8	8.7	8.6	µg / m³	8.7	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.025	0.024	μg / m³	0.02	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.27	0.28	0.26	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.38	1.37	1.36	ng/m³	1.4	20

INFERENCE

As per NAAQS Standards

Report Status: ed 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,

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.



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (0) : 08392-255169,

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20478

Report Issued Date: 29.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location : Vysanakere Village

Sample Collected By : MSV Analytical Laboratories, Bellary.

4. Particulars of the sample : Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt
6. Analysis Starting Date
7. Analysis Completion Date
24.11.2022
25.11.2022
29.11.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
5.NO	Parameter	11000015	1	2	3		Avg.	
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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,

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.



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

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

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)

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

MSVAL/A/F/16/03

### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022805F

Report Issued Date: 29.11.2022

1. Name of the Project

: 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 sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt6. Analysis Starting Date

: 24.11.2022 : 25.11.2022

7. Analysis Completion Date

29.11.2022

8. Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
3.110	1 at affecter	11000013	1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub> µg/m <sup>3</sup>	IS-5182(Part-23) - 2006	50.2	51.4	49.6	μg / m³	50.4	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	19.6	20.3	18.2	μg / m³	19.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	10.2	10.9	9.2	μg / m³	10.1	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	11.2	12.3	9.8	μg / m³	11.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	9.8	9.7	9.6	μg / m³	9.7	100
6	Lead	IS-5182(Part22) - 2004	0.021	0.020	0.019	μg / m³	0.02	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.28	0.29	0.27	mg/m³	0.33	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.27	1.26	1.25	ng/m³	1.3	20

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,

Water samples will destroyed after 10days, Filter papers & Thimbies 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.



Recognition by MoEF under Environment (Protection) Act, 1986 (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 08392-255169.

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20479

Report Issued Date: 29.11.2022

1. Name of the Project

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Gunda Village** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt **Analysis Starting Date** 

24.11.2022 . 25.11.2022

6. 7. Analysis Completion Date : 29.11.2022

8. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
			/1/	2	3	520.044		
10	Benzene as C <sub>6</sub> H <sub>6</sub>	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μg / m³	<0.01	5
11	Benzo (α) Pyrene (BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng/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.Chimna Lingana Gouda Chief executive of the laboratory

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.



Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL (Certified by ISO-14001-2015,ISO 22000-2018, ISO 45001-2018,ISO 9001-2015)

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



MSVAL/A/F/16/03

## ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000021032F

Name of the Project

Report Issued Date: 17.11.2022 M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Vysanakere Village

Name of the location

MSV Analytical Laboratories, Bellary. 2. Sample collected with RDS APM460 and FDS GTI-131 Sample Collected By 3.

Particulars of the sample 12.11.2022 5. Date of Sample Receipt 14.11.2022 6.

**Analysis Starting Date** 17.11.2022 **Analysis Completion Date** 

	8. Sample Tested as R		Shift wise results			Units	Result in Avg.	Toleranc e limits
S.No	Parameter	Protocols	1 2 3					
1	Particulate Matter	IS-5182(Part-23) - 2006	59.1	58.6	54.2	μg / m³	57.3	100
2	PM <sub>10</sub> μg/m <sup>3</sup> Particulate Matter or	LAB SOP MSVAL/SOP/A/005	19.6	18.4	17.4	μg / m³	18.5	60
3	PM <sub>2.5</sub> μg/m <sup>3</sup> Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	11.0	10.	9.2	μg / m³	10.1	80
	Oxides of Nitrogen as	IS-5182(Part-6) -	18.4	16.8	16.0	μg / m³	17.1	80
4	NOx	2006	12.2	12.0	11.8	μg / m³	12.0	100
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974 IS-5182(Part22) -	4 1	0.031	0.035	μg / m <sup>3</sup>	0.11	1
6	Lead	2004	0.032				0.44	2
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.38	0.36	0.34	mg/m³	<0.01	400
 8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m <sup>3</sup>		-
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.3	1.32	1.36	ng/m³	1.33	20

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

Analysed by

-: END OF REPORT:-

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

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

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.



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (0) : 08392-255169,



TC-7207

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

MSVAL/A/F/16/03

#### ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000022282F

Report Issued Date: 21.11.2022

1. Name of the Project

: M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

**Smiore Colony** 

Sample Collected By

3. 4. Particulars of the sample MSV Analytical Laboratories, Bellary. Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt 16.11.2022

**Analysis Starting Date** 7. **Analysis Completion Date**  17.11.2022

Sample Tested as Received

21.11.2022

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
2			1	2	3		in Avg.	limits
1	Particulate Matter PM <sub>10</sub> μg/m <sup>3</sup>	IS-5182(Part-23) – 2006	54.5	55.6	58.2	μg / m³	56.1	100
2	Particulate Matter or PM <sub>2.5</sub> µg/m <sup>3</sup>	LAB SOP MSVAL/SOP/A/005	23.4	24.5	22.3	μg / m³	23.4	60
3	Sulphur Dioxide as SO <sub>x</sub>	IS-5182(Part-2) - 2001	19.1	19.9	18.4	μg / m³	19.1	80
4	Oxides of Nitrogen as NO <sub>x</sub>	IS-5182(Part-6) – 2006	21.2	21.9	20.1	μg / m³	21.1	80
5	Ozone as O <sub>3</sub>	IS 5182(part-9)1974	0.41	0.42	0.40	μg / m³	0.4	100
6	Lead	IS-5182(Part22) - 2004	0.035	0.034	0.033	μg / m³	0.11	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.41	0.42	0.40	mg/m³	0.4	2
8	Ammonia as NH <sub>3</sub>	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.2	1.1	1.0	ng/m³	1.11	20

INFERENCE

As per NAAQS Standards

Report Status :- The anal values for above measured parameter are within the limits

Analysed by

-: END OF REPORT:-

Authorized Signatory

B.Chima Lingana Gouda Chief executive of the laboratory

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

<sup>2.</sup> 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.

<sup>3.</sup> 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.

<sup>5.</sup> Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



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

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

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No: Mob: 94498 03895, (0): 08392-255169,

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



MSVAL/A/F/18/03

### ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000022492F

M/s. The Sandur Manganese & Iron Ores Ltd.

Report Issued Date: 24.11.2022

Name of the Industry : M/s. The Sandur Manganese (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. Particulars of Sample Collected : Sample collected with VSS - 1

5. Date of Sample Receipt : 19.11.2022
6. Analysis Starting Date : 21.11.2022
7. Analysis Completion Date : 24.11.2022

8. Sample Tested as Received

### **GENERAL DETAILS**

<u>GENERALE E</u>	/LITTLES		
Date of Monitoring	19.11.2022		
Fuel Used			
Stack Temperature (°C)	40		
Velocity (m/s)	5.6		
Height (m)	15mtrs AGL		
Diameter (m)	0.7		
Cross sectional area (m <sup>2</sup> )	0.38465		

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	27.1	50

As per GSR 277 (E) Standards.
INFERENCE Report Status: The analyzed v

Report Status:- The analyzed value for above measured parameter is within the limits.

Analysed by

BALDARI OR AND TO THE PARTY OF THE PARTY OF

-: END OF REPORT:-

**Authorized Signatory** 

B.Chimna Lingana Gouda Chief executive of the laboratory

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

Water samples will destroyed after 10days, Filter papers & Thimbies 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.



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

MSVAL/A/F/18/03

### ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000022493F

Report Issued Date: 24.11.2022 M/s. The Sandur Manganese & Iron Ores Ltd.

Name of the Industry

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Stack ID

**Coke Cutter** 

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of Sample Collected

Sample collected with VSS - 1

**Date of Sample Receipt Analysis Starting Date** 

19.11.2022 21.11.2022

7. **Analysis Completion Date**  24.11.2022

Sample Tested as Received

GENERAL DETAILS

LIXIXIO		
19.11.2022		
36		
5.5		
15mtrs AGL		
0.7		
0.38465		
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	19.11.2022  36 5.5 15mtrs AGL 0.7	

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	23.2	50

INFERENCE

As per KSPCB Standards

Report Status:- The analyzed value for above measured parameter is

within the limits.

Analysed by



Authorized Signatory - CP. 20 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 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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### ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000022293F

Report Issued Date : 21.11.2022

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.

Stack ID

Coal Crushing Area

3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Particulars of Sample Collected

Sample collected with VSS – 1 16.11.2022

5. Date of Sample Receipt6. Analysis Starting Date

17.11.2022

7. Analysis Completion Date

: 21.11.2022

8. Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	16.11.2022
Fuel Used	
Stack Temperature (°C)	42
Velocity (m/s)	5.6
Height (m)	15mtrs AGL
Diameter (m)	0.75
Cross sectional area (m²)	0.44156

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	22.1	50

INFERENCE

As per KSPCB Standards

Report Status:- The analyzed value for above measured parameter is

within the limits.

Analysed by

BALDARI OR STATE

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,

Water samples will destroyed after 10days, Filter papers & Thimbies 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/A/F/18/03

### ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000022294F

Report Issued Date: 21.11.2022

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. Stack ID

DG Set 750 KVA

3. Sample Collected By

MSV Analytical Laboratories, Bellary.

4. Particulars of Sample Collected 5.

Sample collected with VSS - 1

Date of Sample Receipt **Analysis Starting Date** 6.

16.11.2022 17.11.2022

7. **Analysis Completion Date** 

21.11.2022

Sample Tested as Received 8.

**GENERAL DETAILS** 

Date of Monitoring	4644.000
Fuel Used	16.11.2022
2000 March Control Con	Diesel
Stack Temperature (°C)	102
Velocity (m/s)	6.8
Height (m)	15mtrs AGL
Diameter (m)	
Cross sectional area (m²)	0.3
or oss sectional area (m²)	0.07065

RESILI TS

Parameters	Protocol	Unit	Result	KSPCB Consent
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	20.1	Standards
Sulphur dioxide	IS-11255(Part2) - 1985	8/ - 1111		100
Nitrogen dioxide	IS-11255(Part7) - 2005		22.3	50
8	13-11233(Fart7) - 2005	PPM	17.7	50

INFERENCE

As per KSPCB Consent Standards.

Report Status :- The analyzed value for above measured parameter is within the limits.

Analysed by

-: END OF REPORT:-

**Authorized Signatory** B.Chinna Lingana Gouda

Chief executive of the laboratory

vote: 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

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.



1.

# **MSV** Analytical Laboratories

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MSVAL/A/F/18/03

### ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TTC720722000021156F

Name of the Industry

M/s. The Sandur Manganese & Iron Ores Ltd.

Report Issued Date: 18.11.2022

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka. Coke Oven Battery - Passes Through WHRB-1

2. Stack ID MSV Analytical Laboratories, Bellary. Sample Collected By

Sample collected with VSS - 1 Particulars of Sample Collected

14.11.2022 **Date of Sample Receipt** 15.11.2022 **Analysis Starting Date** 6. **Analysis Completion Date** 18.11.2022 7.

Sample Tested as Received 8.

**GENERAL DETAILS** 

Date of Monitoring	14.11.2022		
Fuel Used	17.		
Stack Temperature (°C)	104		
Velocity (m/s)	6.5		
Height (m)	60 mtrs AGL		
Diameter (m)	3.4		
Cross sectional area (m²)	9.0746		

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	33.8	50
Sulphur dioxide	IS-11255(Part2) - 1985	mg/Nm³	30.1	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm³	22.6	500
Carbon Monoxide as(CO)	IS 13270	%	0.20	Max 1%

INFERENCE	As per GSR 277 (E) Standards. Report Status:- The analyzed value for above measured parameter is
	within the limits.

Analysed by

-: END OF REPORT:-

B.Chinna Lingana Gouda

Chief executive of the laboratory

Authorized Signatory

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

2. Water samples will destroyed after 10days, Filter papers & Thimbies 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/A/F/18/03

### ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000021158F

Report Issued Date: 18.11.2022

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. Stack ID

Ferro Alloy Arc Furnace

Sample Collected By

4. Particulars of Sample Collected MSV Analytical Laboratories, Bellary. Sample collected with VSS - 1

**Date of Sample Receipt** 

14.11.2022

**Analysis Starting Date** 6. 7. **Analysis Completion Date** 

15.11.2022 18.11.2022

Sample Tested as Received 8.

GENERAL DETAILS

Date of Monitoring	
Fuel Used	14.11.2022
Stack Temperature (°C)	
Velocity (m/s)	96
Height (m)	6.1
Diameter (m)	35 mtrs AGL
Cross sectional area (m²)	2.5
== 132 300tional al Ea (III²)	4.90625

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E)
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	27.0	Standards
	, , , , , ,	mg/Nm	27.0	150

INFERENCE

As per GSR 277 (E) Standards.

Report Status :- The analyzed value for above measured parameter is within the limits.

Analysed by

-: END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda Chief executive of the laboratory

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

<sup>2.</sup> 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

<sup>3.</sup> 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.

<sup>5.</sup> Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



2.

Stack ID

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MSVAL/A/F/18/03

### ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000021157F

Name of the Industry

Report Issued Date : 18.11.2022

M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

. Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Coke Oven Battery - Passes Through WHRB-2

3. Sample Collected By MSV Analytical Laboratories, Bellary. Particulars of Sample Collected 4. Sample collected with VSS - 1

Date of Sample Receipt 5. 14.11.2022 **Analysis Starting Date** 6. 15.11.2022 7. **Analysis Completion Date** 18.11.2022

Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	DETAILS
Fuel Used	14.11.2022
Stack Temperature (°C)	
Velocity (m/s)	85
Height (m)	6.1
Diameter (m)	60 mtrs AGL
Cross sectional area (m²)	3.4
DEGIN	9.0746

RESULTS

Parameters Particulate Matter	Protocol	Unit	Result	GSR 277 (E) Standards
	IS-11255(Part1) - 1985	mg/Nm³	30.1	50
Sulphur dioxide	IS-11255(Part2) - 1985	mg/Nm³	35.2	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm <sup>3</sup>	58.2	
Carbon Monoxide		g/ 1/111	30.2	500
as(CO)	IS 13270	%	0.20	Max 1%

INFERENCE	As per GSR 277 (E) Standards.  Report Status: The analyzed value for above measured parameter is within the limits.
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Analysed by

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

-: END OF REPORT:-

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

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