

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 & 2^{nd} 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



10-720

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023166F

Issue Date: 06.12.2022

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

4. Particulars of the sample

5. Date of Sample Receipt

6. Sample Code

7. Analysis Starting Date

8. Analysis Completion Date9. Sample Tested as Received

: Smiore Colony

: MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

02.12.2022

24201

03.12.2022

: 06.12.2022

S.No	Parameter	Protocols	Shif	t wise resi	ılts	Units	Result	Tolerance
Diivo	Turumeter (7.00000	1	2	3	01110	in Avg.	limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23)	56.4	53.2	54.2	μg / m³	54.6	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	16.5	15.2	16.1	μg / m³	15.9	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.2	8.2	9.3	μg / m³	8.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.5	11.2	12.3	μg / m³	12.0	80
5	Ozone as O ₃	IS 5182(part-9)	8.5	7.2	8.1	μg / m³	7.9	100
6	Lead	IS-5182(Part22)	< 0.01	<0.01	<0.01	μg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.24	0.26	mg/m³	0.28	2
8	Ammonia as NH ₃	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	<0.01	<0.01	<0.01	ng / m³	<0.01	20

INFERENCE

As per NAAQS Standards

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

Analysed by

TICAL LABORATION AND THE PORT OF REPORT OF REPORT OF REPORT OF THE PORT OF THE

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/2022/20714

Issue Date: 06.12.2022

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.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131 02.12.2022

Date of Sample Receipt

20714

Sample Code **Analysis Starting Date**

03.12.2022 06.12.2022

Analysis Completion Date

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
5.110		1 - 1 - 1	1	2	3		Avg.	illines
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<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.China 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.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023169F

Issue Date: 06.12.2022

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

: 02.12.2022

6. Sample Code

: 24202

7. Analysis Starting Date8. Analysis Completion Date

: 03.12.2022

9. Sample Tested as Received

06.12.2022

S.No	Parameter	Protocols	Shift wise results		ults	Units	Result	Tolerance
	28	V	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23)	50.4	51.2	50.1	μg / m³	50.6	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	14.2	13.2	14.1	μg / m³	13.8	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.5	6.2	7.4	μg / m³	7.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.7	14.7	14.6	μg / m³	14.7	80
5	Ozone as O ₃	IS 5182(part-9)	8.8	8.2	8.4	μg / m³	8.5	100
6	Lead	IS-5182(Part22)	<0.01	< 0.01	<0.01	μg / m³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.24	0.30	mg/m³	0.32	2
8	Ammonia as NH ₃	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	<0.01	<0.01	<0.01	ng / m³	<0.01	20

INFERENCE

As per NAAQS Standards

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

Analysed by

donn bel

B.Chiena Lingana Gouda Chief executive of the laboratory

REPORT-5

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

2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No:: MSVAL/2022/20715

Issue Date: 06.12.2022

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

02.12.2022

6. Sample Code7. Analysis Starting Date

: 03.12.2022 : 06.12.2022

8. Analysis Completion Date

9. Sample Tested as Received

a N	Parameter 1	Protocols	Shi	Shift wise results			Result in	Tolerance limits
S.No	Parameter	Trotocois	1	2	3		Avg.	Illints
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<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

INFERENCE

As per NAAQS Standards

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

Analysed by

LARI ORPIO

B.Chima 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.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023170F

Issue Date: 06.12.2022

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 5. Sample Code

02.12.2022 24203

Analysis Starting Date Analysis Completion Date 8.

03.12.2022

Sample Tested as Received

06.12.2022

S.No	Parameter	Protocols	Shift wise results		ılts	Units	Result	Tolerance
3.100	rarameter	A descensi	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀ µg/m³	IS-5182(Part-23)	52.7	51.2	52.2	μg / m³	52.0	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	19.5	18.2	19.5	μg / m³	19.1	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.4	8.2	8.4	μg / m³	8.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.5	12.5	11.2	μg / m³	12.1	80
5	Ozone as O ₃	IS 5182(part-9)	7.4	7.2	7.5	μg / m³	7.4	100
6	Lead	IS-5182(Part22)	<0.01	<0.01	<0.01	μg / m ³	<0.01	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.24	0.25	mg/m³	0.33	2
8	Ammonia as NH ₃	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	<0.01	<0.01	<0.01	ng / m³	<0.01	20

INFERENCE

As per NAAQS Standards

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

Analysed by

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.

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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/2022/20716

Issue Date: 06.12.2022

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 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt 5.

02.12.2022

Sample Code

20716

Analysis Starting Date 7.

03.12.2022 06.12.2022

Analysis Completion Date 8.

Sample Tested as Received

		Protocols	Shi	Shift wise results		Shift wise results		Shift wise results		Shift wise results		Shift wise results		Shift wise results		Units	Result in	Tolerance limits
S.No	Parameter	Protocols	1	2	3		Avg.	Imites										
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<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 / m ³	<0.01	6										

INFERENCE

As per NAAQS Standards

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

Analysed by

B.Chinna Lingana Gouda Chief executive of the laboratory

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023171F

Issue Date: 06.12.2022

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 2.

Gunda 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

02.12.2022

6. Sample Code **Analysis Starting Date** 7.

24204 03.12.2022

Analysis Completion Date

06.12.2022

Sample Tested as Received

	P	Protocols	Shift wise results		TY						Result	Tolerance limits
S.No	Parameter	Hotocois	1(1/	2	3		m Avg.	IIIIICS				
1	Particulate Matter PM ₁₀ µg/m³	IS-5182(Part-23)	53.7	52.1	53.2	μg / m³	53.0	100				
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	16.5	15.1	16.4	μg / m³	16.0	60				
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	6.2	6.2	6.4	μg / m ³	6.3	80				
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.8	14.3	14.5	μg / m³	14.5	80				
5	Ozone as O ₃	IS 5182(part-9)	8.5	7.2	8.4	μg / m³	8.0	100				
6	Lead	IS-5182(Part22)	<0.01	<0.01	<0.01	μg / m³	<0.01	1				
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.33	0.32	mg/m³	0.32	2				
8	Ammonia as NH ₃	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	<0.01	<0.01	<0.01	ng / m³	<0.01	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.

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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/2022/20717

Issue Date: 06.12.2022

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

Particulars of the sample

Date of Sample Receipt

Sample Code

Analysis Starting Date

Analysis Completion Date 8. Sample Tested as Received Gunda Village

MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

02.12.2022

20717

03.12.2022

06.12.2022

O.V.	Parameter	Protocols	Shift wise results		Shift wise results		Units	Result in Avg.	Tolerance limits
S.No	Parameter	(170606010	1	2	3		Avg.		
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<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

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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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: TC720722000023454F

Report Issued Date: 09.12.2022

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

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt Sample Code

06.12.2022 24584

Analysis Starting Date

07.12.2022

Analysis Completion Date

09.12.2022 Sample Tested as Received

a.v.	Parameter	Protocols	Shif	Shift wise results		Units	Result in Avg.	Tolerance limits
S.No	Parameter	Trotocois .	1	2	3		III Avg.	
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	56.2	55.4	54.3	μg / m³	55.30	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	19.7	18.6	17.4	μg / m³	18.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	10.2	9.3	8.6	μg / m³	9.37	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	18.2	16.8	16.0	μg / m³	17.00	80
5	Ozone as O ₃	IS 5182(part-9)1974	11.0	10.8	10.4	μg / m³	10.7	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.025	0.024	μg / m³	0.025	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.34	0.32	0.30	mg / m³	0.32	2
8	Ammonia as NH ₃	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	1.20	1.29	1.18	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

-: END OF

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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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/2022/20902

Report Issued Date: 09.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasan<mark>akere, Hanumanahalli Village,</mark> 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

06.12.2022

Sample Code

20902 07.12.2022

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

09.12.2022

Sample Tested as Received

a 11	Parameter	Protocols	Shi	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	1100000	1	2	3			
10	Benzene as C ₆ H ₆	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 - LP-2 B.Chirina 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.

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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: TC720722000023455F

Report Issued Date: 09.12.2022

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

Sample collected with RDS APM460 and FDS GTI-131

Sample Code

06.12.2022 24585

Analysis Starting Date 7. Analysis Completion Date 07.12.2022 09.12.2022

	Sample Tested as R	eceived							
	P	Protocols	Shift	ft wise results Units		Unite		Result in Avg.	Tolerance limits
S.No	Parameter	11000000	1	2	3				
1	Particulate Matter	IS-5182(Part-23) - 2006	52.0	51.0	50.2	μg / m³	51.07	100	
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	18.9	7.2	16.4	μg / m³	14.17	60	
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.1	7.3	6.7	μg / m³	7.37	80	
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	13.7	12.0	10.7	μg / m³	12.13	80	
	Ozone as O ₃	IS 5182(part-9)1974	7.9	7.6	7.4	μg / m³	7.6	100	
6	Lead	IS-5182(Part22) - 2004	0.025	0.024	0.023	μg / m³	0.024	1	
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.22	0.21	0.20	mg/m³	0.21	2	
8	Ammonia as NH ₃	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	1.27	1.26	1.24	ng / m³	1.25	20	

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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Vysanakere Village

Test Report No: MSVAL/2022/20903

Report Issued Date: 09.12.2022

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

Particulars of the sample

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

Date of Sample Receipt

06.12.2022 20903

Sample Code

Analysis Starting Date 7.

07.12.2022 09.12.2022

Analysis Completion Date

	9. Sample Tested a	Protocols	Shi	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocois	1	2	3		Avg.	
10	Benzene as C ₆ H ₆	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 ³	<0.01	1
12	(BaP) Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	- 6

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

Analysed by

Authorized Signatory 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.

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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: TC720722000023456F

Report Issued Date: 09.12.2022

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

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

Gunda Village

Name of the location 2. Sample Collected By MSV Analytical Laboratories, Bellary.

Sample collected with RDS APM460 and FDS GTI-131

Particulars of the sample Date of Sample Receipt

Name of the Project

06.12.2022

Sample Code

24586 07.12.2022

Analysis Starting Date Analysis Completion Date

09.12.2022

	9. Sample Tested as Re	Tables 1	Shift wise results			Units	Result in Avg.	Tolerance limits
No	Parameter	Protocols	1	2	3			
1	Particulate Matter	IS-5182(Part-23) - 2006	55.2	54.2	53.6	μg / m³	54.33	100
2	PM ₁₀ μg/m ³ Particulate Matter or	LAB SOP MSVAL/SOP/A/005	19.0	12.8	17.4	μg / m³	16.40	60
3	PM _{2.5} μg/m ³ Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.7	7.3	6.5	μg / m³	7.50	80
	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	17.8	16.8	16.0	μg / m³	16.87	80
4	NOx	IS 5182(part-9)1974	8.3	8.2	8.1	μg / m ³	8.2	100
5	Ozone as O ₃	IS-5182(Part22) -	0.38	0.40	0.39	μg / m³	0.39	1
6	Lead Carbon Monoxide as	LAB SOP	0.27	0.25	0.23	mg / m³	0.25	2
7	CO	MSVAL/SOP/A/007 LAB SOP	<0.01	<0.01	<0.01	μg / m ³	<0.01	400
8	Ammonia as NH ₃ Nickel as Ni	MSVAL/SOP/A/006 LAB SOP MSVAL/SOP/A/008	1.32	1.30	1.31	ng / m³	1.31	20

INFERENCE

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

Analysed by

B.Chinha 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.

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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/2022/20904

Report Issued Date: 09.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyas<mark>anakere, Hanumanaha</mark>lli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Gunda Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

Sample collected with RDS APM460 and FDS GTI-131 06.12.2022

Date of Sample Receipt 5. Sample Code

20904

Analysis Starting Date

07.12.2022

Analysis Completion Date 8.

09.12.2022

Sample Tested as Received

C No	Parameter	Protocols	Shi	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No	rarameter	77000010	1	2	3	l.	Avg.	IIIIICS
10	Benzene as C ₆ H ₆	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 / m ³	<0.01	6

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

Analysed by

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.

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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: TC720722000023453F

Report Issued Date: 09.12.2022

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. Sample Code

06.12.2022 24583

7. Analysis Starting Date

: 07.12.2022

8. Analysis Completion Date

: 09.12.2022

9. Sample Tested as Received

S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result in Avg.	Tolerance limits
5.110			1	2	3			
1	Particulate Matter PM ₁₀ μg/m ³	IS-5 <mark>1</mark> 82(Part-23) - 2006	57.1	56.2	55.2	μg / m³	56.1	100
2	Particulate Matter or PM _{2.5} μg/m ³	LAB SOP MSVAL/SOP/A/005	30.0	29.1	28.4	μg / m³	29.17	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	9.8	9.7	8.6	μg / m³	9.37	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	16.6	14.8	14.2	μg / m³	15.20	80
5	Ozone as O ₃	IS 5182(part-9)1974	9.1	8.8	8.4	μg / m³	8.7	100
6	Lead	IS-5182(Part22) - 2004	0.037	0.034	0.030	μg / m³	0.033	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.41	0.32	0.35	mg/m³	0.36	2
8	Ammonia as NH ₃	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	1.25	1.24	ng/m³	1.23	20

INFERENCE

As per NAAQS Standards

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

Analysed by

A STORY

BALLARI PATO STATE OF REPORT:

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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

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

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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/2022/20901

Report Issued Date: 09.12.2022

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 2. Sample Collected By

Smiore Colony

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

06.12.2022

Sample Code **Analysis Starting Date** 20901 07.12.2022

Analysis Completion Date

09.12.2022

9. Sample Tested as F		Protocols		Shift wise results			Result in Avg.	Tolerance limits
S.No	Parameter	110000013	1	2	3	2.0	11.6.	
10	Benzene as C ₆ H ₆	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 ³	<0.01	1
12	(BaP) Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / m³	<0.01	6

As per NAAQS Standards 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

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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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: TC720722000023640F

Report Issued Date: 13.12.2022

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

09.12.2022 24817

Sample Code

10.12.2022

Analysis Starting Date Analysis Completion Date

13.12.2022

	9. Sample Tested as R	750	Shift wise results Protocols			Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocois	1	2	3		m Avg.	
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	54.1	53.1	52.7	μg / m³	53.30	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	25.2	24.5	25.6	μg / m³	25.10	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.0	8.7	7.7	μg / m³	8.47	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	14.9	13.8	13.2	μg / m³	13.97	80
	Ozone as O ₃	IS 5182(part-9)1974	8.9	7.4	7.2	μg / m³	7.3	100
5 6	Lead Lead	IS-5182(Part22) - 2004	0.031	0.030	0.030	μg / m³	0.030	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.38	0.37	0.34	mg/m³	0.36	2
8	CO Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.26	1.24	1.22	ng / m³	1.24	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.

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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/2022/20993

Report Issued Date: 13.12.2022

Name of the Project

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

Vya<mark>sanake</mark>re, Hanumanaha<mark>lli</mark> Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Smiore Colony

Sample Collected By 3.

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

Particulars of the sample

09.12.2022

Date of Sample Receipt Sample Code

20993

Analysis Starting Date

10.12.2022 13.12.2022

Analysis Completion Date ested as Received

	9. Sample l'esteu a	Received	A Street	2. 1 1	The Key			
	Protocols		Shi	ift wise re	esults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Trotocois	1	2	3	t ar		
10	Benzene as C ₆ H ₆	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
11	(BaP)	CPCB Procedure	<0.01	<0.01	<0.01	ng/m³	<0.01	6
12	Arsenic as As	Crobinoccaure	The	8				

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

Analysed by

B.Chimna 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: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023641F

Report Issued Date: 13.12.2022

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

Sample Code

09.12.2022 24818

Analysis Starting Date

10.12.2022 13.12.2022

Analysis Completion Date

		Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No	Parameter	FIOLOCOIS	1	2	3		III Avg.	mines
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	55.7	54.6	53.4	μg / m³	54.57	100
2	Particulate Matter or PM _{2.5} μg/m ³	LAB SOP MSVAL/SOP/A/005	18.6	17.4	16.4	μg / m³	17.47	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.4	8.7	7.5	μg / m³	8.53	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	16.8	16.0	15.0	μg / m³	15.93	80
5	Ozone as O ₃	IS 5182(part-9)1974	10.6	10.4	9.6	μg / m³	10.20	100
6	Lead	IS-5182(Part22) - 2004	0.024	0.022	0.020	μg / m³	0.020	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.32	0.31	0.30	mg / m³	0.31	2
8	Ammonia as NH ₃	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	1.19	1.18	1.17	ng / m³	1.18	20

INFERENCE

As per NAAQS Standards

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

Analysed by

B.Chinna Lingana Gouda Chief executive of the laboratory

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.

^{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.



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

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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/2022/20996

Report Issued Date: 13.12.2022

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. Sample collected with RDS APM460 and FDS GTI-131

Particulars of the sample Date of Sample Receipt 5.

09.12.2022

Sample Code

20996

7. Analysis Starting Date

10.12.2022

Analysis Completion Date

13.12.2022

Sample Tested as Received

	5. Sample restor as	201	Shift wise results		sults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocois	1	2	3		Avg.	
10	Benzene as C ₆ H ₆	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

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

Analysed by

B.Chiana 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.

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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 Report Issued Date: 13.12.2022

Test Report No: TC720722000023642F

Name of the Project

2.

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Name of the location

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

(Metal & Ferro Alloys Plant)

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

Vysanakere Village

MSV Analytical Laboratories, Bellary.

Sample Collected By Sample collected with RDS APM460 and FDS GTI-131

Particulars of the sample 09.12.2022 Date of Sample Receipt

24819 Sample Code

10.12.2022 **Analysis Starting Date** 13.12.2022 **Analysis Completion Date**

le Tested as Received

	9. Sample Tested as R	Protocols	Shift	wise resul	ts	Units	Result in Avg.	Toleranc e limits
S.No	Parameter		1	2	3			
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) - 2006	51.0	50.2	49.0	μg / m³	50.07	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	17.4	16.6	15.2	μg / m³	16.40	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	7.7	6.7	6.3	μg / m ³	6.90	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	13.0	12.4	11.8	μg / m³	12.40	80
-	F. B. E.	IS 5182(part-9)1974	7.0	6.9	6.8	$\mu g / m^3$	6.90	100
5 6	Ozone as O ₃	IS-5182(Part22) -	0.24	0.22	0.20	μg / m³	0.22	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.21	0.20	0.18	mg / m³	0.20	2
8	CO Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.25	1.24	1.20	ng / m³	1.23	20

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

Analysed by

Authorized Signatory B.Chinda 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.

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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/2022/20994

Report Issued Date: 13.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasanakere<mark>, Hanuma</mark>nahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Vysanakere 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

09.12.2022

Sample Code

20994

Analysis Starting Date

10.12.2022 13.12.2022

Analysis Completion Date

	9. Sample Tested as		Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Protocols	1	2	3			
10	Benzene as C ₆ H ₆	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	μ g / 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

INFERENCE

As per NAAQS Standards

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

Analysed by

B.Chinna Lingana Gouda Chief executive of the laboratory

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

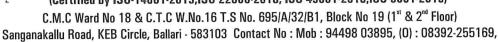
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.

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.

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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)





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: TC720722000023643F

Report Issued Date: 13.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasan<mark>akere, Hanumanahalli Village,</mark> Hospet Taluk, Bellary District, Karnataka.

Name of the location Sample Collected By

Gunda Village

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

09.12.2022

Sample Code 6.

24820

Analysis Starting Date

10.12.2022 13.12.2022

Analysis Completion Date

	Parameter	Protocols	Shi	ft wise resu	lts	Units	Result in Avg.	Tolerance limits
S.No		Totocoio	1	2	3		m Avg.	
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	51.0	49.8	48.4	μg / m³	49.73	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	18.4	16.3	15.4	μg / m³	16.70	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	7.4	6.4	6.2	μg / m³	6.67	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	16.0	14.8	13.8	μg / m³	14.87	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.0	7.9	7.8	μg / m ³	7.90	100
6	Lead	IS-5182(Part22) - 2004	0.049	0.048	0.047	μg / m³	0.05	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.25	0.24	0.22	mg/m³	0.24	2
8	Ammonia as NH ₃	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	1.25	1.29	1.28	ng / m³	1.27	20

INFERENCE

As per NAAQS Standards

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

Analysed by

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.

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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/2022/20995

Report Issued Date: 13.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasa<mark>nakere,</mark> Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Gunda Village 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

09.12.2022 20995

Sample Code **Analysis Starting Date**

10.12.2022 13.12.2022

Analysis Completion Date

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
			1	2	3			
10	Benzene as C ₆ H ₆	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

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

Analysed by

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: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023966F

Report Issued Date: 16.12.2022

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 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt 5.

13.12.2022 25233

Sample Code 6. **Analysis Starting Date**

14.12.2022

Analysis Completion Date

16.12.2022

C.N	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No			1 1	2	3		III Avg.	
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	53.8	52.3	51.1	μg / m³	52.40	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	19.5	18.7	17.4	μg / m³	18.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.7	8.45	7.55	μg / m³	8.57	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	18.5	16.75	16.0	$\mu g / m^3$	17.08	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.7	8.4	8.0	μg / m³	8.37	100
6	Lead	IS-5182(Part22) - 2004	0.025	0.022	0.018	μg / m³	0.022	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.34	0.31	0.26	mg/m³	0.30	2
8	Ammonia as NH ₃	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	1.26	1.22	1.18	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

-: END OF RE

Authorized Signatory 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/2022/21114

Report Issued Date: 16.12.2022

1. Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasanake<mark>re, Ha</mark>numanahalli 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

13.12.2022

6. Sample Code

21114 14.12.2022

7. Analysis Starting Date

: 14.12.2022 : 16.12.2022

8. Analysis Completion Date

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
		4	1	2	3			
10	Benzene as C ₆ H ₆	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	$\mu g / m^3$	<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.Chimha 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 & 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: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023965F

Report Issued Date: 16.12.2022

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.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt Sample Code

13.12.2022 25232

Analysis Starting Date

14.12.2022

Analysis Completion Date

: 16.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Tolerance
			1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) – 2006	59.2	58.4	57.1	μg / m³	58.23	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	20.5	19.7	18.5	μg / m³	19.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	10.25	8.9	8.5	μg / m³	9.22	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	16.15	16.05	14.9	μg / m³	15.70	80
5	Ozone as O ₃	IS 5182(part-9)1974	12.4	12.0	11.4	μg / m³	11.93	100
6	Lead	IS-5182(Part22) – 2004	<0.5	<0.5	<0.5	µg / m³	<0.5	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.36	0.32	0.28	mg/m³	0.32	2
8	Ammonia as NH ₃	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	<1.0	<1.0	<1.0	ng / m³	<1.0	20

INFERENCE

As per NAAQS Standards

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

Analysed by

-: END OF REPORT

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: 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/2022/21111

Report Issued Date: 16.12.2022

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.

4. Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

13.12.2022

6. Sample Code

21111

7. Analysis Starting Date

14.12.2022

3. Analysis Completion Date

16.12.2022

Sample Tested as Received

S.No	Parameter Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
		Trotocois	1	2	3			
10	Benzene as C ₆ H ₆	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
	1 Dat 1	CDCD Brosoduro	<0.01	< 0.01	<0.01	ng / m ³	< 0.01	6

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

Analysed by

CAL LABORATION OF THE POPULATION OF THE POPULATI

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.

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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: TC720722000023968F

Report Issued Date: 16.12.2022

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 4.

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt 5. Sample Code 6.

13.12.2022 25235

Analysis Starting Date 7.

14.12.2022

Analysis Completion Date 8. 1 . m - -t -d -a Donoivod 16.12.2022

C N-	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No		Trotocois	1	2	3		m Avg.	mints
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	51.7	50.4	49.3	μg / m³	50.47	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	18.5	17.7	16.7	μg / m³	17.63	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	10.2	9.0	8.3	μg / m³	9.17	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	15.8	14.8	13.75	μg / m³	14.78	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.4	8.1	7.6	μg / m³	8.03	100
6	Lead	IS-5182(Part22) - 2004	0.027	0.023	0.018	μg / m³	0.022	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.36	0.32	0.28	mg / m³	0.32	2
8	Ammonia as NH ₃	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	1.34	1.30	1.24	ng / m³	1.29	20

INFERENCE

As per NAAQS Standards

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

Analysed by

-: END 0

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.

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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/2022/21112

Report Issued Date: 16.12.2022

1. Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasanake<mark>re, H</mark>anumanahalli 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

13.12.2022 21112

6. Sample Code7. Analysis Starting Date

: 14.12.2022

Analysis Starting Date
 Analysis Completion Date

16.12.2022

9 Sample Tested as Received

. 10.12

		Protocols	Shi	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Fiotocois	1	2	3		Avg.	
10	Benzene as C ₆ H ₆	IS:5182(part 11) -	<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

e limits
•

Analysed by

BALLARI PATO

Authorized Signatory

B.Chinga 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.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023967F

Report Issued Date: 16.12.2022

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 2.

Vysanakere Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample 4.

13.12.2022

Date of Sample Receipt 5.

25234

Sample Code

14.12.2022

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

: 16.12.2022

S.No	D	Protocols	Shift	wise resu	lts	Units	Result in Avg.	Tolerance limits
	Parameter	A Totocois	1	2	3		m Avg.	
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	53.1	52.7	51.3	μg / m³	52.37	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	19.7	18.4	17.6	μg / m³	18.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.5	8.5	7.3	μg / m³	8.43	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	15.8	13.75	13.0	μg / m³	14.18	80
5	Ozone as O ₃	IS 5182(part-9)1974	7.8	7.5	7.2	μg / m³	7.50	100
6	Lead	IS-5182(Part22) - 2004	0.017	0.014	0.012	μg / m³	0.014	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.28	0.24	0.22	mg/m³	0.25	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.0.1	<0.01	μg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.21	1.17	1.13	ng / m³	1.17	20

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

Analysed by

Authorized Signatory 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.

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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/2022/21113

Report Issued Date: 16.12.2022

1. Name of the Project

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

(Metal & Ferro Alloys Plant)

Vy<mark>asa</mark>nakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location Sample Collected By

Vysanakere Village

Particulars of the sample

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

5. Date of Sample Receipt

13.12.2022 21113

Sample Code **Analysis Starting Date** 7.

14.12.2022

Analysis Completion Date

16.12.2022

	9. Sample Tested as I	201	Shi	Shift wise results Units		Result in	Tolerance limits	
S.No	Parameter	Protocols	1	2	3	ug / m³	Avg.	
10	Benzene as C ₆ H ₆	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

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

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^{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.



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,

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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: TC720722000024096F

Report Issued Date: 20.12.2022

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

16.12.2022 25398

6. Sample Code

17.12.2022

7. Analysis Starting Date 8. Analysis Completion Date

: 20.12.2022

9. Sample Tested as Received

S.No	Parameter	Protocols	Shift	wise resu	lts	Units	Result in Avg. 52.40 15.53 7.05 13.23 7.83 0.028 0.30	Tolerance limits
	1		1	2	3		m Avg.	illints
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) - 2006	53.2	52.7	51.3	$\mu g / m^3$	52.40	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	16.5	15.4	14.7	μg / m³	15.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	7.4	6.2	7.55	μg / m³	7.05	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	14.8	12.95	11.95	$\mu g / m^3$	13.23	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.2	7.8	7.5	μg / m³	7.83	100
6	Lead	IS-5182(Part22) - 2004	0.032	0.028	0.024	μg / m³	0.028	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.34	0.30	0.26	mg/m³	0.30	2
8	Ammonia as NH ₃	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	1.25	1.23	ng / m³	1.25	20

INFERENCE

As per NAAQS Standards

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

Analysed by

BALLARI 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: 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/2022/21291

Report Issued Date: 20.12.2022

1. Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasanakere, <mark>Hanuman</mark>ahalli Village, Hospet Taluk, Bellary District, Karnataka.

2. Name of the location

: Gunda 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

: 16.12.2022

6. Sample Code

3.

21291

7. Analysis Starting Date

17.12.2022

. Analysis Completion Date

20.12.2022

9. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in	Tolerance limits
3.140	Tarameter		1	2	3		Avg.	
10	Benzene as C ₆ H ₆	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.Chimna Lingana Gouda
Chief executive of the laboratory

-: END OF REPORT:

e: 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.

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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: TC720722000024093F

Report Issued Date: 20.12.2022

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.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

16.12.2022

Sample Code

25397

Analysis Starting Date 7.

17.12.2022

Analysis Completion Date

20.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shif	t wise resi	ults	Units	Result in Avg. 53.60 15.47 8.42 11.85 8.60 0.021 0.28 <0.01	Tolerance
	***	ZIYY	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) - 2006	54.8	53.7	52.3	μg / m³	53.60	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	16.4	15.8	14.2	μg / m³	15.47	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.5	8.45	7.3	μg / m³	8.42	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	13.2	11.25	11.1	μg / m³	11.85	80
5	Ozone as O ₃	IS 5182(part-9)1974	9.2	8.5	8.1	μg / m³	8.60	100
6	Lead	IS-5182(Part22) - 2004	0.024	0.021	0.017	μg / m³	0.021	. 1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.32	0.28	0.24	mg / m³	0.28	2
8	Ammonia as NH ₃	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	1.26	1.24	1.21	ng / m³	1.24	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/2022/21288

Report Issued Date: 20.12.2022

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

: 16.12.2022

6. Sample Code

21288 : 17.12.2022

Analysis Starting Date
 Analysis Completion Date

: 20.12.2022

9. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in	Tolerance limits
3.110	Tarameter	1100000	1	2	7 3		Avg.	
10	Benzene as C ₆ H ₆	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 / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

BALLARI OF THE BALLARI STATE

Authorized Signatory

Level W

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.

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000024094F

Report Issued Date: 20.12.2022

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

Date of Sample Receipt

16.12.2022 25398

Sample Code **Analysis Starting Date** 7.

17.12.2022

Analysis Completion Date

20.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shir	t wise res	ults	Units	Result	Tolerance limits
	10000000000000000000000000000000000000	100	1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) - 2006	50.7	49.5	48.5	μg / m³	49.57	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	14.3	13.8	13.1	μg / m³	13.73	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	7.0	6.5	7.3	μg / m³	6.93	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	14.5	12.65	12.4	μg / m³	13.18	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.4	8.1	7.6	μg / m³	8.03	100
6	Lead	IS-5182(Part22) – 2004	0.021	0.017	0.014	μg / m³	0.017	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.42	0.38	0.34	mg / m³	0.38	2
8	Ammonia as NH ₃	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	1.32	1.28	1.23	ng / m³	1.28	20

INFERENCE

As per NAAQS Standards

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

Analysed by

*

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/2022/21289

Report Issued Date: 20.12.2022

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

: 16.12.2022

6. Sample Code
7. Analysis Starting Date

21289 : 17.12.2022

7. Analysis Starting Date B. Analysis Completion Date

: 20.12.2022

9. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
5.110	Turanic to		1	2	3			
10	Benzene as C ₆ H ₆	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 / m ³	<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

BALLARI CONTINUE CONT

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: msvalbellarv2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellarv.com



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000024095F

Report Issued Date: 20.12.2022

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

16.12.2022

5. Sample Code

25399

Analysis Starting Date 7

17.12.2022

Analysis Completion Date

20.12.2022

9.	Sam	ple	Tested	as	Received
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S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result	Tolerance limits
5	*		1	2	3		in Avg.	IIIIICS
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) - 2006	52.6	51.8	50.2	μg / m³	51.53	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	19.4	20.5	19.8	μg / m³	19.90	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.8	7.15	6.5	μg / m³	7.48	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	13.5	11.9	10.75	μg / m³	12.05	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.4	8.1	7.6	μg / m³	8.03	100
6	Lead	IS-5182(Part22) - 2004	0.016	0.013	0.011	μg / m³	0.013	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.32	0.28	0.25	mg/m³	0.28	2
8	Ammonia as NH ₃	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	1.21	1.17	1.14	ng / m³	1.17	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.



(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: 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/2022/21290

Report Issued Date: 20.12.2022

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 Receipt

16.12.2022 21290

6. Sample Code

17.12.2022

7. Analysis Starting Date 8. Analysis Completion Date

: 20.12.2022

9. Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
3.110	T at affect	A Total cons	1	2	3			
10	Benzene as C ₆ H ₆	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

BALLAN AA -END OF REPORTS Authorized Signatory
B.Chinna Lingana Gouda
Chief executive of the laboratory

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.

^{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.

^{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) 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: TC720722000025518F

Report Issued Date: 26.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

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

2. 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 Sample Code 6.

22.12.2022 26007

Analysis Starting Date 7. **Analysis Completion Date** 23.12.2022 26.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shif	t wise res	ults	Units	Result	Tolerance limits
	2. 70 (0.000)		1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) – 2006	54.4	58.4	52.6	μg / m ³	55.13	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	23.1	23.4	24.1	μg / m³	23.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	10.9	11.6	12.0	μg / m³	23.53	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	20.6	21.2	21.8	μg / m³	11.50	80
5	Ozone as O ₃	IS 5182(part-9)1974	10.2	10.4	10.1	μg / m³	21.20	100
6	Lead	IS-5182(Part22) - 2004	0.024	.025	0.023	μg / m³	10.23	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.32	mg/m³	0.024	2
8	Ammonia as NH ₃	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	1.20	1.20	1.19	ng / m³	1.20	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/2022/21458

Report Issued Date: 26.12.2022

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

22.12.2022

6. Sample Code

: 21458 : 23.12.2022

7. Analysis Starting Date 8. Analysis Completion Date

: 26.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise r	esults	Units	Result in	Tolerance limits
3.NU	rarameter	77010000	1	2	3		Avg.	
10	Benzene as C ₆ H ₆	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

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 REPOR

^{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.



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)



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: TC720722000025519F

Report Issued Date: 26.12.2022

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.

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 Sample Code

22.12.2022 26009

Analysis Starting Date Analysis Completion Date 23.12.2022 26.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
3.110	Tarameter		1	2	3		m Avg.	Immes
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	54.2	55.1	55.6	μg / m³	54.97	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	16.2	16.8	17.2	μg / m³	16.73	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.8	9.2	9.5	μg / m³	9.17	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	14	14.1	14.2	μg / m³	14.10	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.6	8.8	8.4	μg / m³	8.60	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.027	0.025	μg / m³	0.026	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.30	0.32	0.28	mg/m³	0.30	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.18	1.19	1.17	ng / m³	1.18	20

INFERENCE

As per NAAQS Standards

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

Analysed by

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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F-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/2022/21459

Report Issued Date: 26.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

Vy<mark>asanak</mark>ere, 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

22.12.2022

Sample Code

21459

Analysis Starting Date

23.12.2022

Analysis Completion Date

26.12.2022

nnle Tested as Received

CN	Devemotor	Protocols	Shi	ift wise re	sults	Units	Result in Avg.	Tolerance limits
S.No	Parameter	Totocois	1	2	3			
10	Benzene as C ₆ H ₆	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

Chief executive of the laboratory

ND OF REI

^{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: TC720722000025520F

Report Issued Date: 26.12.2022

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

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

22.12.2022

Sample Code

26010

Analysis Starting Date Analysis Completion Date 8.

23.12.2022 26.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shift	t wise resu	ılts	Units	Result in Avg.	Toleranc e limits
5.NO	r at affected		1	2	3		III Avg.	Cilinits
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) – 2006	52.1	52.5	53.1	μg / m³	52.57	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	15.2	15.8	16.2	μg / m³	15.73	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.2	8.8	9.5	μg / m³	8.83	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	15.8	16.4	17.1	μg / m³	16.43	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.0	8.2	7.8	μg / m³	8.00	100
6	Lead	IS-5182(Part22) - 2004	0.028	0.029	0.027	μg / m³	0.028	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.24	0.26	0.22	mg/m³	0.24	2
8	Ammonia as NH ₃	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	1.17	ng / m³	1.18	20

INFERENCE

As per NAAQS Standards

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

Analysed by

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.

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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/2022/21460

Report Issued Date: 26.12.2022

Name of the Project

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

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka. Vysanakere Village

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

22.12.2022

Sample Code

21460 23.12.2022

Analysis Starting Date Analysis Completion Date

26.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
5.110		i de la companya de l	1	2	3			
10	Benzene as C ₆ H ₆	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

INFERENCE

As per NAAQS Standards

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

Analysed by

CD.

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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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000025521F

Report Issued Date: 26.12.2022

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

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt Sample Code

22.12.2022

Analysis Starting Date

26008 23.12.2022

Analysis Completion Date

26.12.2022

9.	Sam	ple	T	ested	as	Received

S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result	Tolerance
51.10	_		1	2	3		in Avg.	limits
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	56	56.5	57.1	μg / m³	56.53	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	16.8	17.2	17.8	μg / m³	17.27	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	9.2	9.5	9.9	μg / m³	9.53	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	13.4	13.4	13.4	μg / m³	13.40	80
5	Ozone as O ₃	IS 5182(part-9)1974	7.4	7.6	7.2	μg / m³	7.40	100
6	Lead	IS-5182(Part22) - 2004	0.023	0.024	0.022	μg / m³	0.023	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.28	0.30	0.26	mg/m³	0.28	2
8	Ammonia as NH ₃	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	1.11	1.09	ng / m³	1.10	20

INFERENCE

As per NAAQS Standards

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

Authorized Signatory B.Chinna/Jingana 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.

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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/2022/21461

Report Issued Date: 26.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

V<mark>yas</mark>anakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location

Gunda 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

22.12.2022 21461

Sample Code Analysis Starting Date

23.12.2022 26.12.2022

Analysis Completion Date

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise r	esults	Units	Result in Avg.	Tolerance limits
5.NO	r al ameter	1100000	1	2	3		Avg.	Illines
10	Benzene as C ₆ H ₆	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 / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

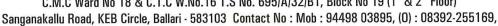
Authorized Signatory

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 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: TC720722000025368F

Report Issued Date: 23.12.2022

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.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

20.12.2022 25759

Sample Code **Analysis Starting Date**

21.12.2022

Analysis Completion Date

23.12.2022

C N	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result	Tolerance limits
S.No	rarameter	A SELECTION OF THE PROPERTY OF	1	2	3		in Avg.	
1	Particulate Matter	IS-5182(Part-23) - 2006	56.1	56.6	57.2	μg / m³	56.63	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	29.1	29.4	30.1	μg / m³	29.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 20018.7	9.9	10.2	10.9	μg / m³	10.33	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	18.8	19.4	20.1	μg / m³	19.43	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.6	8.8	8.4	μg / m³	8.60	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.027	0.025	μg / m³	0.026	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.36	0.38	0.34	mg / m³	0.36	2
8	Ammonia as NH ₃	LAB SOP MSVAL/SOP/A/006	<0.01	<0.01	<0.01	μg / m ³	<0.01	400
9	Nickel as Ni	LAB SOP MSVAL/SOP/A/008	1.10	1.12	1.08	ng / m³	1.10	20

INFERENCE

As per NAAQS Standards

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

Analysed by

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.

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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/2022/21410

Report Issued Date: 23.12.2022

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

20.12.2022

6. Sample Code

21410

7. Analysis Starting Date

21.12.2022

Analysis Completion Date

: 23.12.2022

Sample Tested as Received

: 23.12.20

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
	T di dineces	24 1 Y	1	2	3			
10	Benzene as C ₆ H ₆	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 / m ³	<0.01	6

INFERENCE	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

-: 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 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: TC720722000025369F

Report Issued Date: 23.12.2022

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 Sample Code

20.12.2022 25760

Analysis Starting Date 7.

21.12.2022

Analysis Completion Date 8.

23.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result	Tolerance
5			1	2	3	5	in Avg.	limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) – 2006	55.1	55.6	56.1	μg / m³	55.60	100
2	Particulate Matter or PM _{2.5} μg/m ³	LAB SOP MSVAL/SOP/A/005	18.1	18.4	19.1	μg / m³	18.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	7.8	8.5	8.8	μg / m³	8.37	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	15.3	15.8	16.4	μg / m³	15.83	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.2	8.4	8.0	μg / m³	8.20	100
6	Lead	IS-5182(Part22) - 2004	0.022	0.023	0.021	μg / m³	0.022	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.31	0.33	0.35	mg/m³	0.33	2
8	Ammonia as NH ₃	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	1.13	1.11	ng / m³	1.12	20

INFERENCE

As per NAAQS Standards

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

Analysed by



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.

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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/2022/21411

Report Issued Date: 23.12.2022

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

20.12.2022

6. Sample Code

21411 : 21.12.2022

7. Analysis Starting Date 8. Analysis Completion Date

: 23.12.2022

. Sample Tested as Received

S.No Parame	Devemotor	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
	Parameter	Frotocois	1	2	3			
10	Benzene as C ₆ H ₆	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

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 or 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: TC720722000025370F

Report Issued Date: 23.12.2022

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

3.

Sample Collected By

Vysanakere Village

Particulars of the sample

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

Date of Sample Receipt

20.12.2022

Sample Code

25761

Analysis Starting Date

21.12.2022 23.12.2022

Analysis Completion Date Sample Tested as Received

S.No	Parameter	Protocols	Shi	ft wise res	ults	Units	Result	Toleranc
	769		1	2	3		in Avg.	e limits
1	Particulate Matter PM ₁₀ μg/m ³	IS-5182(Part-23) – 2006	52.1	52.5	53.1	μg / m³	52.57	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	16.1	16.6	17.1	μg / m³	16.60	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	6.1	6.8	7.1	μg / m³	6.67	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) – 2006	13.4	13.4	13.4	μg / m³	13.40	. 80
5	Ozone as O ₃	IS 5182(part-9)1974	6.8	7.0	6.6	μg / m³	6.80	100
6	Lead	IS-5182(Part22) - 2004	0.016	0.017	0.015	μg / m³	0.016	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.22	0.24	0.20	mg / m³	0.22	2
8	Ammonia as NH ₃	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	1.17	ng / m³	1.18	20

INFERENCE

As per NAAQS Standards

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

Analysed by

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 & 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/2022/21412

Report Issued Date: 23.12.2022

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 Receipt

20.12.2022

6. Sample Code

21412 21.12.2022

Analysis Starting Date
 Analysis Completion Date

: 23.12.2022

9. Sample Tested as Received

S.No Parameter	Parameter	Protocols	Sh	ift wise re	sults	Units	Result in Avg.	Tolerance limits
		1	2	3	_	Avg.	mints	
10	Benzene as C ₆ H ₆	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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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: TC720722000025371F

Report Issued Date: 23.12.2022

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

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

20.12.2022

Sample Code

25762

Analysis Starting Date Analysis Completion Date 8.

21.12.2022

Sample Tested as Received

23.12.2022

S.No	Parameter	Protocols	Shif	t wise resu	ılts	Units	Result in Avg.	Tolerance limits
5		A CONTRACTOR OF THE PARTY OF TH	1	2	3		ili Avg.	Illiits
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	56.1	56.4	57.1	μg / m³	56.53	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	20.1	20.5	21.1	μg / m³	20.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.8	9.2	9.6	μg / m³	9.20	80
4	Oxides of Nitrogen as	IS-5182(Part-6) - 2006	17.6	18.2	18.8	μg / m³	18.20	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.0	8.2	7.8	μg / m³	8.00	100
6	Lead	IS-5182(Part22) - 2004	0.022	0.023	0.021	μg / m³	0.022	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.32	mg / m³	0.34	2
8	Ammonia as NH ₃	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	1.18	1.19	1.17	ng / m³	1.18	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, Fifter 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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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/2022/21413

Report Issued Date: 23.12.2022

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

Sample Collected By

Gunda Village

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131 20.12.2022

Date of Sample Receipt Sample Code

21413

Analysis Starting Date

21.12.2022 : 23.12.2022

Analysis Completion Date 8.

Sample Tested as Received

S.No	Parameter	Protocols	Sh	ift wise re	esults	Units	Result in Avg.	Tolerance limits
		4	1	2	3			
10	Benzene as C ₆ H ₆	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

B.Chinna 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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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000029986F

Report Issued Date: 30.12.2022

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

Date of Sample Receipt

27,12,2022

Sample Code

8

26586

Analysis Starting Date 7. **Analysis Completion Date** 28.12.2022 30.12.2022

Sample Tested as Received

C No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No	rarameter		1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) – 2006	57.9	56.2	55.1	μg / m³	56.40	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	28.3	27.4	25.1	μg / m³	26.93	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	12.9	11.97	11.18	μg / m³	12.02	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	17.62	16.66	14.91	μg / m³	16.40	80
5	Ozone as O ₃	IS 5182(part-9)1974	9.6	8.3	7.6	μg / m³	8.50	100
6	Lead	IS-5182(Part22) - 2004	0.030	0.028	0.028	μg / m³	0.029	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.40	0.38	0.32	mg/m³	0.37	2
8	Ammonia as NH ₃	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	1.26	1.22	ng / m³	1.26	20

INFERENCE

As per NAAQS Standards

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

Analysed by

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.

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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/2022/21896

Report Issued Date: 30.12.2022

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

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

27.12.2022

6. Sample Code

21896

7. Analysis Starting Date

28.12.2022 30.12.2022

Analysis Completion Date 8. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
		1/2	1	2	3		11.6.	
10	Benzene as C ₆ H ₆	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

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory ~ CP. 2

B.Chinna Lingana Gouda

Chief executive of the laboratory

-: END OF REI

^{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 kahmsy@gmail.com/Webaito uwwwyczpsvalbellary.com

Test Report No: TC720722000029987F

Report Issued Date: 30.12.2022

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.

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

27.12.2022

Sample Code 6.

26587

Analysis Starting Date

28.12.2022 30.12.2022

Analysis Completion Date Sample Tested as Received

C No.	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No	Parameter		1	2	3		m Av _B .	
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) – 2006	54.2	53.2	51.0	μg / m³	52.80	100
2	Particulate Matter or PM _{2.5} μg/m ³	LAB SOP MSVAL/SOP/A/005	17.6	16.1	15.6	μg / m³	16.43	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.12	7.10	6.73	μg / m³	7.32	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	17.27	15.06	13.75	μg / m³	15.36	80
5	Ozone as O ₃	IS 5182(part-9)1974	9.6	8.3	7.6	μg / m ³	8.50	100
6	Lead	IS-5182(Part22) - 2004	0.030	0.028	0.028	μg / m³	0.029	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.38	0.34	0.32	mg / m³	0.35	2
8	Ammonia as NH ₃	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	1.26	1.22	ng / m³	1.26	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 laborator

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: 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/2022/21897

Report Issued Date: 30.12.2022

Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyasa<mark>nake</mark>re, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka.

Name of the location 2.

Kallahalli Village

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

5. Date of Sample Receipt

27.12.2022

6. Sample Code

21897

7. Analysis Starting Date

28.12.2022

Analysis Completion Date 8.

30.12.2022

Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
		- X	1	2	3		1116.	
10	Benzene as C ₆ H ₆	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 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



Report Issued Date: 30.12.2022

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

30.12.2022

Test Report No: TC720722000029988F

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

Name of the Project (Metal & Ferro Alloys Plant)

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

Vysanakere Village Name of the location 2.

MSV Analytical Laboratories, Bellary. Sample Collected By 3.

Particulars of the sample 27.12.2022

Date of Sample Receipt 5. 26588 Sample Code 6. 28.12.2022 **Analysis Starting Date** 7.

Analysis Completion Date 8. nle Tested as Received

	D	Protocols	Shift	wise resu	lts	Units	Result in Avg.	Toleranc e limits
S.No	Parameter	Trotogons	1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) – 2006	51.3	50.2	49.2	μg / m³	56.40	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	30.2	28.1	29.6	μg / m³	26.93	60
3 .	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.29	7.85	8.07	μg / m³	12.02	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	14.91	13.70	13.80	μg / m³	16.40	80
	Ozone as O ₃	IS 5182(part-9)1974	8.8	7.3	6.5	μg / m³	8.50	100
5 6	Lead	IS-5182(Part22) - 2004	0.026	0.024	0.022	μg / m³	0.029	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.26	0.32	0.20	mg / m³	0.37	2
8	CO Ammonia as NH ₃	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	1.26	1.24	0.22	ng / m ³	1.26	20

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

Analysed by

-: END 01

B.Chinna Lingana Gouda Chief executive of the laboratory

Authorized Signatory

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/2022/21898

Report Issued Date: 30.12.2022

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 Receipt

27.12.2022

6. Sample Code

21898

7. Analysis Starting Date

: 28.12.2022 : 30.12.2022

8. Analysis Completion Date

Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
		101	1	2	3		Av ₆ .	- IIIII
10	Benzene as C ₆ H ₆	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 / m ³	<0.01	1
12	Arsenic as As	CPCB Procedure	<0.01	<0.01	<0.01	ng / m ³	<0.01	6

INFERENCE

As per NAAQS Standards

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

Analysed by

BALLARI OR REPORTS

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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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000029989F

Report Issued Date: 30.12.2022

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

MSV Analytical Laboratories, Bellary.

Particulars of the sample

Sample collected with RDS APM460 and FDS GTI-131

Date of Sample Receipt

27.12.2022

Sample Code

26589 28.12.2022

Analysis Starting Date Analysis Completion Date 8.

30.12.2022

Sample Tested as Received

C.N.	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
S.No	rarameter	110100010	1	2	3		0	
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) – 2006	57.3	56.2	55.5	μg / m³	56.33	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	21.4	20.2	19.2	μg / m³	20.27	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) – 2001	9.19	7.94	7.05	μg / m ³	8.06	80
4	Oxides of Nitrogen as	IS-5182(Part-6) – 2006	17.17	16.46	15.01	μg / m³	16.21	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.5	9.6	7.3	μg / m ³	8.47	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.028	0.020	μg / m³	0.025	1
7	Carbon Monoxide as	LAB SOP MSVAL/SOP/A/007	0.26	0.32	0.22	mg/m³	0.27	2
8	Ammonia as NH ₃	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	1.26	1.22	1.20	ng / m³	1.23	20

INFERENCE

As per NAAQS Standards

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

Analysed by

Authorized Signatory

Chief executive of the laborator

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/2022/21899

Report Issued Date: 30.12.2022

1. Name of the Project

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

(Metal & Ferro Alloys Plant)

Vyas<mark>anak</mark>ere, 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

27.12.2022

6. Sample Code

21899

7. Analysis Starting Date

: 28.12.2022 : 30.12.2022

8. Analysis Completion Date

Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in	Tolerance limits
			1	2	3			
10	Benzene as C ₆ H ₆	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

^{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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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: TC720722000023492F

-

Report Issued Date: 30.12.2022

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 : 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

: 27.12.2022

6. Sample Code7. Analysis Starting Date

2.

: 26456

8. Analysis Completion Date

: 28.12.2022 : 30.12.2022

9. Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	27.12.2022
Fuel Used	1077
Stack Temperature (°C)	46
Velocity (m/s)	6.5
Height (m)	15mtrs AGL
Diameter (m)	0.7
Cross sectional area (m ²)	0.38465

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	25.2	50

As per GSR 277 (E) Standards.

INFERENCE Report Status: The analyzed value for above measured parameter is 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.

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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: TC720722000023493F

Report Issued Date: 30.12.2022

Name of the Industry

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

Hospet Taluk, Bellary District, Karnataka.

Stack ID 2.

Sample Collected By 3.

Particulars of Sample Collected 4.

Date of Sample Receipt 5.

Sample Code 6.

Analysis Starting Date 7.

Analysis Completion Date 8.

Sample Tested as Received 9.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Coke Cutter

MSV Analytical Laboratories, Bellary.

Sample collected with VSS - 1

27.12.2022

26457

28.12.2022

30.12.2022

GENERAL DETAILS

Date of Monitoring	27.12.2022
Fuel Used	
Stack Temperature (°C)	39
Velocity (m/s)	5.7
Height (m)	15mtrs AGL
Diameter (m)	0.7
Cross sectional area (m²)	0.38465

RESULTS

Parameters 🌺	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	24.2	50

	As per KSPCB Standards
INFERENCE	Report Status:- The analyzed value for above measured parameter is
	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,

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^{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.



2.

3.

4.

5.

6.

7.

Stack ID

Sample Code

MSV Analytical Laboratories

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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: TC720722000023494F

Particulars of Sample Collected

Name of the Industry

Sample Collected By

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

Report Issued Date: 30.12.2022

(Metal & Ferro Alloys Plant)

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

Coal Crushing Area

MSV Analytical Laboratories, Bellary.

Sample collected with VSS - 1

27.12.2022

26458

28.12.2022 30.12.2022

Analysis Starting Date Analysis Completion Date 8.

Date of Sample Receipt

Sample Tested as Received 9.

GENERAL DETAILS

ETHE
27.12.2022
T A
35
6.2
15mtrs AGL
0.75
0.44156

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	22.4	50

	As per KSPCB Standards
INFERENCE	Report Status:- The analyzed value for above measured parameter is
	within the limits.

Analysed by

-: END OF REPORT:-

- Cf. 20 B.Chinna Lingana Gouda Chief executive of the laboratory

Authorized Signatory

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

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^{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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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: TC720722000023495F

1. Name of the Industry

2. Stack ID

3. Sample Collected By

4. Particulars of Sample Collected

5. Date of Sample Receipt

6. Sample Code

7. Analysis Starting Date

8. Analysis Completion Date

9. Sample Tested as Received

Report Issued Date: 30.12.2022

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-1

: MSV Analytical Laboratories, Bellary.

: Sample collected with VSS - 1

: 12.12.2022

: 25035

: 13.12.2022

: 16.12.2022

GENERAL DETAILS

GENERAL	DETAILS		
Date of Monitoring	12.12.2022		
Fuel Used			
Stack Temperature (°C)	156		
Velocity (m/s)	6.7		
Height (m)	60 mtrs AGL		
Diameter (m)	4.6		
Cross sectional area (m²)	16.61		
Flow/Discharge Rate of Gas Nm³/Hr	388674		

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	28.6	50
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	27.2	800
Nitrogen dioxide	IS-11255(Part7) – 2005	mg/Nm³	62.4	500
Carbon Monoxide as(CO)	IS 13270	%	0.17	Max 1%
Oxygen as O2	Instrument Method	%	5.7	

As per GSR 277 (E) Standards.

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

Analysed by

Authorized Signatory

Linguity

B.Chilina Lingana Gouda

Chief executive of the laboratory

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

END OF REPORT:-

^{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.

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E-mail: msvalbellary2018@gmail.com, labmsv@gmail.com, Website: www.msvalbellaryscom, L/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMMISSION

Test Report No: TC720722000023496F

1. Name of the Industry

Report Issued Date: 30.12.2022 M/s. The Sandur Manganese & Iron Ores Ltd.

Authorized Signatory

B.Chimna Lingana Gouda Chief executive of the laboratory

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka. Coke Oven Battery - Passes Through WHRB-2

2. Stack ID

3. Sample Collected By

4. Particulars of Sample Collected

5. Date of Sample Receipt

6. Sample Code

7. Analysis Starting Date

8. Analysis Completion Date9. Sample Tested as Received

MSV Analytical Laboratories, Bellary.

Sample collected with VSS – 1

12.12.2022

: 25039

: 13.12.2022

16.12.2022

GENERAL DETAILS

GENERAL D	DITTEL		
Date of Monitoring	12.12.2022		
Fuel Used			
Stack Temperature (°C)	159		
Velocity (m/s)	7.0		
Height (m)	60 mtrs AGL		
Diameter (m)	4.6		
Cross sectional area (m²)	16.61		
Flow/Discharge Rate of Gas Nm ³ /Hr	418572		

RESULTS

	RESORTS			
Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) – 1985	mg/Nm³	29.4	50
Sulphur dioxide	IS-11255(Part2) – 1985	mg/Nm³	33.2	800
Nitrogen dioxide	IS-11255(Part <mark>7) -</mark> 2005	mg/Nm³	57.2	500
Carbon Monoxide as(CO)	IS 13270	%	0.25	Max 1%
Oxygen as O2	Instrument Method	%	5.6	

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

Analysed by

: 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.

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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, 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: TC720722000023497F

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

Report Issued Date: 30.12.2022

(Metal & Ferro Alloys Plant)

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

: Ferro Alloy ARC Furnace - 5

: MSV Analytical Laboratories, Bellary.

: Sample collected with VSS - 1

: Sample cone

: 12.12.2022 : 25039

: 13.12.2022

: 16.12.2022

Name of the Industry

2. Stack ID

3. Sample Collected By

4. Particulars of Sample Collected

5. Date of Sample Receipt

6. Sample Code

7. Analysis Starting Date

8. Analysis Completion Date

9. Sample Tested as Received

GENERAL D	ETAILS		
Date of Monitoring	12.12.2022		
Fuel Used			
Stack Temperature (°C)	45		
Velocity (m/s)	6.4		
Height (m)	35 mtrs AGL		
Diameter (m)	2.5		
Cross sectional area (m²)	4.90625		
Flow/Discharge Rate of Gas Nm³/Hr	113040		

	RESUL	15		COD OFF (E)
Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm³	32.4	150
Sulphur dioxide	IS-11255(Part2) - 1985	mg/Nm³	20.6	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm³	48.7	500
Carbon Monoxide as(CO)	IS 13270	%	0.24	Max 1%
Oxygen as O2	Instrument Method	%	5.8	

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

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 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: TC720722000023498F

Report Issued Date: 30.12.2022

Name of the Industry 1.

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

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

Stack ID 2.

Ferro Alloy ARC Furnace - 3

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

Particulars of Sample Collected 4.

Sample collected with VSS - 1

Date of Sample Receipt 5.

12.12.2022 25036

Sample Code 6. Analysis Starting Date 7.

13.12.2022

Analysis Completion Date 8.

16.12.2022

Sample Tested as Received

GENERAL DETAILS

<u>QENERALS</u>	12.12.2022
Date of Monitoring	12.12.2022
Fuel Used	10112
Stack Temperature (°C)	40
Velocity (m/s)	6.0
Height (m)	35 mtrs AGL
Diameter (m)	2.5
Cross sectional area (m ²)	4.90625
Flow/Discharge Rate of Gas Nm³/Hr	105975

RESULTS

	ALDO TO			CCD 277 (E)	
Parameters	Protocol	Unit	Result	GSR 277 (E) Standards	
	IS-11255(Part1) - 1985	mg/Nm³	34.6	150	
Particulate Matter	IS-11255(Part2) -		22.2	800	
Sulphur dioxide	1985	mg/Nm³	22.2		
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm³	51.6	500	
Carbon Monoxide	IS 13270	%	0.28	Max 1%	
as(CO) Oxygen as O2	Instrument Method	%	5.7		

As per GSR 277 (E) Standards.

INFERENCE

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

within the limits.

Analysed by

Authorized Signatory

B.Chinda 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.

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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.msvalbellaryYc6MAL/W/F/13/00-720

ANALYSIS REPORT OF WATER QUALITY

Test Report No: TC720722000023964F

1. Name of the Industry

Report Issued Date: 16.12.2022 M/s. The Sandur Manganese & Iron Ores Ltd.

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka. Surface water – Tungabhadra Reservoir

Name of the sampleSample Collected By

MSV Analytical Laboratories

4. Sample Quantity

2 Liters

5. Sample Description/condition

: Good/Satisfactory

6. Date of Sample Receipt7. Sample Code

: 13.12.2022 : 25231

8. Analysis Starting Date9. Analysis Completion date

14.12.2022 16.12.2022

10. Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
		Physical paramete	rs		
1	Taste	IS: 3025(part-7)	🥙	Agreeable	Agreeable
2	Color	IS: 3025(part-4)		<1	10
3	Odor	IS: 3025(part-5)	72 1	Un objectionable	Un objectionable
4	рН	IS: 3025(part-11)	1	7.43	6.5-8.5
5	Conductivity	IS-3025 (part 14)	μs/cm	872	
		Chemical paramete	ers	g 74	
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	438	500
7	Calcium as Ca	IS: 3025(part-40)	mg/l	24.8	80.10
8	Total Hardness as CaCO₃	IS: 3025(part-21)	mg/l	146.6	300
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	20.55	24.28
10	Oil &Grease	IS: 3025(part-39)	mg/l	Nil	
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	12.2	400
13	Chloride as Cl	IS: 3025(part-32)	mg/l	24.9	250
14	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	2.26	20
15	Iron as Fe	IS: 3025(part-53)	mg/l	0.002	0.3
16	Fluoride as F	IS: 3025(part-60)	mg/l	0.23	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	7.8	Min 6
19	Free CO2	LAB SOP	mg/l	Nil	
20	Free Ammonia	LAB SOP	mg/l	Nil	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.

Verified by

End of the 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.

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^{5.} Sampling is not done by usunless 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/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2022/21127

Report Issued Date: 16.12.2022

Authorized Signatory

B.Chimna Lingana Gouda
Chief Executive of the Laboratory

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. Name of the sample : 3. Sample Collected Ry

Surface water - Tungabhadra Reservoir

3. Sample Collected By : 4. Sample Quantity :

MSV Analytical Laboratories 2 Liters

5. Sample Description/condition

Good/Satisfactory

6. Date of Sample Receipt7. Sample Code

: 13.12.2022 : 21127 : 14.12.2022

8. Analysis Starting Date9. Analysis Completion date

16.12.2022

10. Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
		Chemical parameters			
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.018	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.028	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.004	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	< 0.001	0.05
26	Arsenic as As	APHA 23 rdEDITION -3112 B	mg/l	<0.002	0.05
27	Mercury as Hg	APHA 23rd EDITION -3112 B	mg/l	< 0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	< 0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	< 0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS: 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	22.42	
36	Sodium Absorption Ratio	LAB SOP	mg/l	12.6	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Verified by

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2022/21128

Report Issued Date: 16.12.2022

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.

Sample Type

Surface water - Tungabhadra Reservoir

Sample Collected By 3.

MSV Analytical Laboratories, Bellary.

4. Sample Quantity

250 ml (Sterilized Bottle)

5. Sample description/condition

Good/satisfactory

6. Date of sample Receipt 7. Sample Code

13.12.2022

8. Analysis Starting Date

21128

9. Analysis Completion Date

14.12.2022

10. Sample tested as Received

16.12.2022

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	16	50

INFERENCE IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.

Verified by

nd of the Report**

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.

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^{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/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: TC720722000023939F

Report Issued Date: 16.12.2022

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. Surface water - Canal Near Vysanakere

Name of the sample
 Sample Collected By

MSV Analytical Laboratories

4. Sample Quantity

2 Liters

5. Sample Description/condition

Good/Satisfactory

6. Date of Sample Receipt

13.12.2022

7. Sample Code8. Analysis Starting Date

25190 14.12.2022

9. Analysis Completion date

16.12.2022

10. Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
		Physical paramete	ers		
1	Taste	IS: 3025(part-7)		Agreeable	Agreeable
2	Color	IS: 3025(part-4)	1/20	<5	10
3	Odor	IS : 3025(part-5)	Y	Un objectionable	Un objectionable
4	pH	IS: 3025(part-11)		7.28	6.5-8.5
5	Conductivity	IS-3025 (part 14)	μs/cm	8.4	
		Chemical paramete	ers	W	
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	426	500
7	Calcium as Ca	IS: 3025(part-40)	mg/l	15.6	80.10
8	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	76.9	300
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	14.79	24.28
10	Oil &Grease	IS: 3025(part-39)	mg/l	Nil	
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	6.98	400
13	Chloride as Cl	IS: 3025(part-32)	mg/l	21.9	250
14	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	0.78	20
15	Iron as Fe	IS: 3025(part-53)	mg/l	Nil	0.3
16	Fluoride as F	IS: 3025(part-60)	mg/l	0.23	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	6.55	Min 6
19	Free CO2	LAB SOP	mg/l	Nil	
20	Free Ammonia	LAB SOP	mg/l	Nil	

INFERENCE

IS – 2296 Standards, BDL – Below Detectable Limit Report Status: - The above parameters are within limits.

Verified by

End of the Report

B.Chinna Lingana Gouda
Chief Executive of the Laboratory

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

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

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

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2022/21129

Report Issued Date: 16.12.2022

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. Surface water - Canal Near Vysanakere

Name of the sample
 Sample Collected By

MSV Analytical Laboratories

4. Sample Quantity

: 2 Liters

5. Sample Description/condition6. Date of Sample Receipt

Good/Satisfactory 13.12.2022

7. Sample Code

21129

8. Analysis Starting Date9. Analysis Completion date

: 14.12.2022 : 16.12.2022

10. Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
		Chemical parameter	S		
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.006	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.022	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.004	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	< 0.001	0.05
26	Arsenic as As	APHA 23 rdEDITION -3112 B	mg/l	< 0.001	0.05
27	Mercury as Hg	APHA 23rd EDITION -3112 B	mg/l	< 0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	< 0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	< 0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	< 0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	<0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS: 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	11.2	
36	Sodium Absorption Ratio	LAB SOP	mg/l	18.6	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.

Verified by

End-of the 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.

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2022/21130

Report Issued Date: 16.12.2022

Name of the Industry

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

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Sample Type

Hospet Taluk, Bellary District, Karnataka.

Sample Collected By

Surface water - Canal Near Vysanakere

4. Sample Quantity

MSV Analytical Laboratories, Bellary.

5. Sample description/condition

250 ml (Sterilized Bottle) Good/satisfactory

6. Date of sample Receipt

13.12.2022

7.

21130

8. Analysis Starting Date

14.12.2022

9. Analysis Completion Date

16.12.2022

10. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	18	50

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.

Verified by

Authorized Signatory

B.Chinna Lingana Gouda Chief Executive of the Laboratory



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.

^{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.



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/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: TC720722000023938F

Report Issued Date: 16.12.2022 M/s. The Sandur Manganese & Iron Ores Ltd.

1. Name of the Industry

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka.

2. Name of the sample

Surface water – Dhananayakana Kere Water MSV Analytical Laboratories

3. Sample Collected By

2 Liters

4. Sample Quantity5. Sample Description/condition

Good/Satisfactory

6. Date of Sample Receipt

: 13.12.2022

7. Sample Code

: 25189

8. Analysis Starting Date9. Analysis Completion date

: 14.12.2022 : 16.12.2022

10. Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
		Physical paramete	ers		•
1	Taste	IS: 3025(part-7)		Agreeable	Agreeable
2	Color	IS: 3025(part-4)	1 /	<5	10
3	Odor	IS: 3025(part-5)	THE	Un objectionable	Un objectionable
4	pН	IS: 3025(part-11)		7.99	6.5-8.5
5	Conductivity	IS-3025 (part 14)	μs/cm	748	
	100	Chemical paramete	ers	7.1	
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	416	500
7	Calcium as Ca	IS: 3025(part-40)	mg/l	57.6	80.10
8	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	72.6	300
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	17.5	24.28
10	Oil &Grease	IS: 3025(part-39)	mg/l	14.2	
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	22.6	400
13	Chloride as Cl	IS: 3025(part-32)	mg/l	44.9	250
14	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	1.48	20
15	Iron as Fe	IS: 3025(part-53)	mg/l	0.0035	0.3
16	Fluoride as F	IS: 3025(part-60)	mg/l	0.48	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	6.28	Min 6
19	Free CO2	LAB SOP	mg/l	Nil	
20	Free Ammonia	LAB SOP	mg/l	Nil	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.

Verified by

BALLARI E Report**

B.Chima 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.



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

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

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2022/21131

Report Issued Date: 16.12.2022

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.
Surface water – Dhananayakana Kere Water

Name of the sample
 Sample Collected By

MSV Analytical Laboratories

4. Sample Quantity

2 Liters

5. Sample Description/condition

Good/Satisfactory 13.12.2022

6. Date of Sample Receipt7. Sample Code

25231

7. Sample Code8. Analysis Starting Date

: 14.12.2022

9. Analysis Completion date

16.12.2022

10. Sample tested As Received

S.No	Parameters Protocol		Unit	Result	Standards as per IS - 2296
		Chemical parameters	A Do Maria		
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.016	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.018	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.003	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	< 0.001	0.05
26	Arsenic as As	APHA 23 rd EDITION -3112 B	mg/l	< 0.002	0.05
27	Mercury as Hg	APHA 23rd EDITION -3112 B	mg/l	< 0.001	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	< 0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	< 0.002	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	< 0.001	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS : 13428- <mark>2005</mark>	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	22.6	
36	Sodium Absorption Ratio	LAB SOP	mg/l	14.4	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Verified by

A Paris

Ballari **Bad of the 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.

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Sanganakallu Road, KEB Circle, Ballari - 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/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2022/21132

Report Issued Date: 16.12.2022

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. Sample Type

Surface water - Dhananayakana Kere Water

3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Sample Quantity

: 250 ml (Sterilized Bottle)

5. Sample description/condition

: Good/satisfactory

6. Date of sample Receipt7. Sample Code

: 13.12.2022

8. Analysis Starting Date

: 21132

9. Analysis Completion Date

: 14.12.2022

10. Sample tested as Received

: 16.12.2022

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	14	50

INFERENCE IS – 2296 Standards, BDL – Below Detectable Limit
Report Status: - The above parameters are within limits.

Verified by

Authorized Signatory

B.Chinna Lingana Gouda
Chief Executive of the Laboratory

(X geor)



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

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.msvalbellary1018@gmail.com, labmsv@gmail.com

ANALYSIS REPORT OF WATER QUALITY

Test Report No: TC720722000023936F

Report Issued Date: 16.12.2022

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. Name of the sample 3.

Surface water - Water body near Narayadevarakere

Sample Collected By

MSV Analytical Laboratories

4. Sample Quantity 2 Liters

5. Sample Description/condition Good/Satisfactory

16.12.2022

Date of Sample Receipt 6.

13.12.2022

7. Sample Code 25187

Analysis Starting Date 8.

14.12.2022

9. **Analysis Completion date**

10. Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
		Physical paramete	ers	•	
1	Taste	IS: 3025(part-7)	Ø	Agreeable	Agreeable
2	Color	IS: 3025(part-4)		<5	10
3	Odor	IS: 3025(part-5)	1	Un objectionable	Un objectionable
4	рН	IS: 3025(part-11)	CYYL Y	7.98	6.5-8.5
5	Conductivity	IS-3025 (part 14)	μs/cm	6.48	
		Chemical parameter	ers	7 %	
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	424	500
7	Calcium as Ca	IS: 3025(part-40)	mg/l	34.2	80.10
8	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	158.6	300
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	17.7	24.28
10	Oil &Grease	IS: 3025(part-39)	mg/l	Nil	
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	17.8	400
13	Chloride as Cl	IS: 3025(part-32)	mg/l	134.9	250
14	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	1.26	20
15	Iron as Fe	IS: 3025(part-53)	mg/l	0.004	0.3
16	Fluoride as F	IS: 3025(part-60)	mg/l	0.36	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	6.88	Min 6
19	Free CO2	LAB SOP	mg/l	Nil	
20	Free Ammonia	LAB SOP	mg/l	Nil	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit Report Status: - The above parameters are within limits.

Verified by

End of the Report

Authorized Signatory B.Chimna 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.

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

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2022/21133

Report Issued Date: 16.12.2022

~ Clo m B.Chinna Lingana Gouda Chief Executive of the Laboratory

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. Name of the sample

Surface water - Water body near Narayadevarakere

3. Sample Collected By

MSV Analytical Laboratories

4. Sample Quantity 5. Sample Description/condition

2 Liters

6. Date of Sample Receipt Good/Satisfactory 13.12.2022

7. Sample Code 8. **Analysis Starting Date**

21133 14.12.2022

9. **Analysis Completion date** 10.

Sample tested As Received

16.12.2022

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
	-	Chemical parameters	5		
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.014	0.5
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.017	15
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil	
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.004	1.0
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	<0.002	0.05
26	Arsenic as As	APHA 23 rdEDITION -3112 B	mg/l	<0.001	0.05
27	Mercury as Hg	APHA 23rd EDITION -3112 B	mg/l	<0.002	0.001
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	<0.002	0.1
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	< 0.001	0.01
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	<0.001	0.05
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	<0.002	0.01
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002
34	Anionic Detergents as MBAS	IS: 13428-2005	mg/l	<0.1	0.2
35	Percent Sodium	LAB SOP	%	26.8	
36	Sodium Absorption Ratio	LAB SOP	mg/l	11.2	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Verified by

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

MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2022/21134

Report Issued Date: 16.12.2022

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. Sample Type

Hospet Taluk, Bellary District, Karnataka.

3. Sample Collected By

Surface water - Water body near Narayadevarakere

4. Sample Quantity

MSV Analytical Laboratories, Bellary.250 ml (Sterilized Bottle)

5. Sample description/condition

: Good/satisfactory

6. Date of sample Receipt

: 13.12.2022

7. Sample Code

21134

8. Analysis Starting Date9. Analysis Completion Date

: 14.12.2022

10. Sample tested as Received

: 16.12.2022

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Total Coliform	IS 1622:1981	MPN/100 ml	22	50

MIEEDENIAN	100 000 000	
INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit	
	Report Status: - The above parameters are within limits.	

Verified by

Authorized Signatory

B.Chinna Lingana Gouda Chief Executive of the Laboratory

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.

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

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: TC720722000023937F

Report Issued Date: 16.12.2022

Name of the Industry

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

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village, Hospet Taluk, Bellary District, Karnataka. Surface water - Pond Water Ayyanahalli

2. Name of the sample 3. Sample Collected By

MSV Analytical Laboratories

4. Sample Quantity

Sample Description/condition 5.

Good/Satisfactory

Date of Sample Receipt 6.

13.12.2022 25188

Sample Code 7. **Analysis Starting Date** 8. **Analysis Completion date** 9.

14.12.2022 16.12.2022

10. Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
		Physical paramete	ers		
1	Taste	IS: 3025(part-7)		Agreeable	Agreeable
2	Color	IS: 3025(part-4)		<5	10
3	Odor	IS : 3025(part-5)	10	Un objectionable	Un objectionable
4	pH	IS: 3025(part-11)		8.14	6.5-8.5
5	Conductivity	IS-3025 (part 14)	μs/cm	756	
	-24	Chemical paramete	ers	A	
6	Total Dissolved Solids	IS: 3025(part-16)	mg/l	468	500
7	Calcium as Ca	IS: 3025(part-40)	mg/l	46.2	80.10
8	Total Hardness as CaCO ₃	IS: 3025(part-21)	mg/l	192.8	300
9	Magnesium as Mg	IS: 3025(part-46)	mg/l	18.98	24.28
10	Oil &Grease	IS: 3025(part-39)	mg/l	Nil	
11	Mineral Oil	APHA 23 rd EDITION - 5520 C	mg/l	Nil	0.01
12	Sulphate as SO ₄	IS: 3025(part-24)	mg/l	26.8	400
13	Chloride as Cl	IS: 3025(part-32)	mg/l	99.9	250
14	Nitrate as NO ₃	IS: 3025(part-34)	mg/l	0.85	20
15	Iron as Fe	IS: 3025(part-53)	mg/l	0.006	0.3
16	Fluoride as F	IS: 3025(part-60)	mg/l	0.46	1.50
17	Bio-chemical Oxygen Demand (3 days at 27°C), Max	IS 3025 (Part 44): 1993	mg/l	Nil	2
18	Dissolved Oxygen	IS 3025 (Part 38): 1993	mg/l	7.8	Min 6
19	Free CO2	LAB SOP	mg/l	Nil	
20	Free Ammonia	LAB SOP	mg/l	Nil	

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Verified by

of the Report**

B.Chinna Lingana Gouda Chief Executive of the Laboratory

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

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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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^{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/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2022/21135

Report Issued Date: 16.12.2022

Name of the Industry 1.

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

(Metal & Ferro Alloys Plant)

Vyasanakere, Hanumanahalli Village,

Hospet Taluk, Bellary District, Karnataka. Surface water - Pond Water Ayyanahalli

2. Name of the sample 3.

MSV Analytical Laboratories

Sample Collected By Sample Quantity 4.

2 Liters

Sample Description/condition 5.

Good/Satisfactory 13.12.2022

Date of Sample Receipt 6. 7. Sample Code

21135

8.

14.12.2022

Analysis Starting Date 9. **Analysis Completion date**

16.12.2022

Sample tested As Received

	10. Sample tested As				Standards as	
S.No	Parameters	Protocol	Unit	Result	per IS - 2296	
Chemical parameters						
21	Manganese as Mn	APHA 23 rd EDITION -3111 B	mg/l	0.012	0.5	
22	Zinc as Zn	IS: 3025(part-49)	mg/l	0.018	15	
23	Boron as B	APHA 23 rd EDITION -4500 B	mg/l	Nil		
24	Barium as Ba	APHA 23 rd EDITION -3500 Ba	mg/l	0.004	1.0	
25	Silver as Ag	APHA 23 rd EDITION -3500 Ag	mg/l	< 0.002	0.05	
26	Arsenic as As	APHA 23 rdEDITION -3112 B	mg/l	< 0.001	0.05	
27	Mercury as Hg	APHA 23rd EDITION -3112 B	mg/l	< 0.002	0.001	
28	Lead as Pb	APHA 23 rd EDITION -3111 B	mg/l	< 0.001	0.1	
29	Cadmium as Cd	APHA 23 rd EDITION -3111 B	mg/l	< 0.002	0.01	
30	Chromium as Cr	APHA 23 rd EDITION -3111 B	mg/l	< 0.001	0.05	
31	Selenium as Se	APHA 23 rd EDITION -3500 B	mg/l	< 0.001	0.01	
32	Cyanide as CN	APHA 23 rd EDITION -4500 D	mg/l	Nil	0.05	
33	Phenols	IS: 3025(part-43)	mg/l	Nil	0.002	
34	Anionic Detergents as MBAS	IS: 13428-2005	mg/l	<0.1	0.2	
35	Percent Sodium	LAB SOP	%	24.4		
36	Sodium Absorption Ratio	LAB SOP	mg/l	12.2		

INFERENCE

IS - 2296 Standards, BDL - Below Detectable Limit

Report Status: - The above parameters are within limits.

Chief Executive of the Laboratory

Authorized Signatory

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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^{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/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No: MSVAL/2022/21136

Report Issued Date: 16.12.2022

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. Sample Type

: Surface water - Pond Water Ayyanahalli

3. Sample Collected By

: MSV Analytical Laboratories, Bellary.

4. Sample Quantity5. Sample description/condition

: 250 ml (Sterilized Bottle) : Good/satisfactory

6. Date of sample Receipt

: 13.12.2022

7. Sample Code

: 21137

8. Analysis Starting Date

: 14.12.2022

9. Analysis Completion Date

: 16.12.2022

10. Sample tested as Received

RESULTS

Parameters	Protocol	Unit	Result	Standards as per IS - 2296	
Total Coliform	IS 1622:1981	MPN/100 ml	17	50	

INFERENCE	IS - 2296 Standards, BDL - Below Detectable Limit	
	Report Status: - The above parameters are within limits.	

Verified by

Authorized Signatory

B.Chinna Lingana Gouda

Chief Executive of the Laboratory

End of the Report

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.

^{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.

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