



MSV Analytical Laboratories

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, (O) : 08392-255169,

E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



TC-7207

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)
Vyasnakere, 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 : 02.12.2022
6. Sample Code : 24201
7. Analysis Starting Date : 03.12.2022
8. Analysis Completion Date : 06.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23)	56.4	53.2	54.2	µg / m ³	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 / m ³	15.9	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	9.2	8.2	9.3	µg / m ³	8.9	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.5	11.2	12.3	µg / m ³	12.0	80
5	Ozone as O ₃	IS 5182(part-9)	8.5	7.2	8.1	µg / m ³	7.9	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	0.28	0.24	0.26	mg / m ³	0.28	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	<0.01	<0.01	<0.01	ng / m ³	<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

- 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.msvbellary.com

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20714

Issue Date: 06.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, 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 : 02.12.2022
- Sample Code : 20714
- Analysis Starting Date : 03.12.2022
- Analysis Completion Date : 06.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
10	Benzene as C ₆ H ₆	IS:5182(part 11)	<0.01	<0.01	<0.01	µg / m ³	<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
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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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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023169F

Issue Date: 06.12.2022

- Name of the Project** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, 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** : 02.12.2022
- Sample Code** : 24202
- Analysis Starting Date** : 03.12.2022
- Analysis Completion Date** : 06.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23)	50.4	51.2	50.1	µg / m ³	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 / m ³	13.8	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	7.5	6.2	7.4	µg / m ³	7.0	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	14.7	14.7	14.6	µg / m ³	14.7	80
5	Ozone as O ₃	IS 5182(part-9)	8.8	8.2	8.4	µg / m ³	8.5	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	0.30	0.24	0.30	mg / m ³	0.32	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	<0.01	<0.01	<0.01	ng / m ³	<0.01	20

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



:- END OF REPORT:-

Authorized Signatory

B.Chiana 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 : MSVAL/2022/20715

Issue Date: 06.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, 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 : 02.12.2022
- Sample Code : 20715
- Analysis Starting Date : 03.12.2022
- Analysis Completion Date : 06.12.2022
- Sample Tested as Received

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



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

:- END OF REPORT :-

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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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TC-7207

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)
Vysanakere, 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 : 02.12.2022
6. Sample Code : 24203
7. Analysis Starting Date : 03.12.2022
8. Analysis Completion Date : 06.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23)	52.7	51.2	52.2	µg / m ³	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 / m ³	19.1	60
3	Sulphur Dioxide as SO ₂	IS-5182(Part-2)	8.4	8.2	8.4	µg / m ³	8.3	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	12.5	12.5	11.2	µg / m ³	12.1	80
5	Ozone as O ₃	IS 5182(part-9)	7.4	7.2	7.5	µg / m ³	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 / m ³	0.33	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	<0.01	<0.01	<0.01	ng / m ³	<0.01	20

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



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

END OF REPORT

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No : MSVAL/2022/20716

Issue Date: 06.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 02.12.2022
- Sample Code : 20716
- Analysis Starting Date : 03.12.2022
- Analysis Completion Date : 06.12.2022
- Sample Tested as Received

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



:- END OF REPORT

Authorized Signatory

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

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, 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 : 02.12.2022
- Sample Code : 24204
- Analysis Starting Date : 03.12.2022
- Analysis Completion Date : 06.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23)	53.7	52.1	53.2	µg / m ³	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 / m ³	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 / m ³	14.5	80
5	Ozone as O ₃	IS 5182(part-9)	8.5	7.2	8.4	µg / m ³	8.0	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	0.32	0.33	0.32	mg / m ³	0.32	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	<0.01	<0.01	<0.01	ng / m ³	<0.01	20

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



:- END OF REPORT:-

Authorized Signatory

B.Chinma 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 : 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.
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 : 02.12.2022
6. Sample Code : 20717
7. Analysis Starting Date : 03.12.2022
8. Analysis Completion Date : 06.12.2022
9. Sample Tested as Received

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



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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2nd 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)
Vyanakere, 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 : 06.12.2022
- Sample Code : 24584
- Analysis Starting Date : 07.12.2022
- Analysis Completion Date : 09.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	56.2	55.4	54.3	µg / m ³	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 / m ³	18.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	10.2	9.3	8.6	µg / m ³	9.37	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	18.2	16.8	16.0	µg / m ³	17.00	80
5	Ozone as O ₃	IS 5182(part-9)1974	11.0	10.8	10.4	µg / m ³	10.7	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.025	0.024	µg / m ³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.32	0.30	mg / m ³	0.32	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	1.20	1.29	1.18	ng / m ³	1.22	20

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



:- END OF REPORT :-

Authorized Signatory

B.Chinnna Lingana Gouda
Chief executive of the laboratory

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

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, 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 : 06.12.2022
6. Sample Code : 20902
7. Analysis Starting Date : 07.12.2022
8. Analysis Completion Date : 09.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT:-

Authorized Signatory

B.Chinnna Lingana Gouda
Chief executive of the laboratory

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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023455F

Report Issued Date: 09.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 06.12.2022
- Sample Code : 24585
- Analysis Starting Date : 07.12.2022
- Analysis Completion Date : 09.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	52.0	51.0	50.2	µg / m ³	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 / m ³	14.17	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.1	7.3	6.7	µg / m ³	7.37	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	13.7	12.0	10.7	µg / m ³	12.13	80
5	Ozone as O ₃	IS 5182(part-9)1974	7.9	7.6	7.4	µg / m ³	7.6	100
6	Lead	IS-5182(Part22) - 2004	0.025	0.024	0.023	µg / m ³	0.024	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.21	0.20	mg / m ³	0.21	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	1.27	1.26	1.24	ng / m ³	1.25	20

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



:- END OF REPORT :-

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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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)
Vysanakere, 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 : 06.12.2022
6. Sample Code : 20903
7. Analysis Starting Date : 07.12.2022
8. Analysis Completion Date : 09.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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
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Analysed by



:- END OF REPORT:-

Authorized Signatory

B.Chinnna Lingana Gouda
Chief executive of the laboratory

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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023456F

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 : 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 : 06.12.2022
- Sample Code : 24586
- Analysis Starting Date : 07.12.2022
- Analysis Completion Date : 09.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	55.2	54.2	53.6	µg / m ³	54.33	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	19.0	12.8	17.4	µg / m ³	16.40	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.7	7.3	6.5	µg / m ³	7.50	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.8	16.8	16.0	µg / m ³	16.87	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.3	8.2	8.1	µg / m ³	8.2	100
6	Lead	IS-5182(Part22) - 2004	0.38	0.40	0.39	µg / m ³	0.39	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.27	0.25	0.23	mg / m ³	0.25	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	1.32	1.30	1.31	ng / m ³	1.31	20

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



Authorized Signatory

B.Chigna Lingana Gouda
Chief executive of the laboratory

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20904

Report Issued Date: 09.12.2022

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 06.12.2022
6. Sample Code : 20904
7. Analysis Starting Date : 07.12.2022
8. Analysis Completion Date : 09.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT :-

Authorized Signatory

B.Chinnna Lingana Gouda
Chief executive of the laboratory

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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023453F

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** : 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** : 06.12.2022
- Sample Code** : 24583
- Analysis Starting Date** : 07.12.2022
- Analysis Completion Date** : 09.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	57.1	56.2	55.2	µg / m ³	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 / m ³	29.17	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.8	9.7	8.6	µg / m ³	9.37	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	16.6	14.8	14.2	µg / m ³	15.20	80
5	Ozone as O ₃	IS 5182(part-9)1974	9.1	8.8	8.4	µg / m ³	8.7	100
6	Lead	IS-5182(Part22) - 2004	0.037	0.034	0.030	µg / m ³	0.033	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.41	0.32	0.35	mg / m ³	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	1.21	1.25	1.24	ng / m ³	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
B.Chinna Lingana Gouda
Chief executive of the laboratory

-.: END OF REPORT:-

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MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/20901

Report Issued Date: 09.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, 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 : 06.12.2022
- Sample Code : 20901
- Analysis Starting Date : 07.12.2022
- Analysis Completion Date : 09.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT :-

Authorized Signatory

B. Chinna Lingana Gouda
Chief executive of the laboratory

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TC-7207

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 : 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 : 24817
- Analysis Starting Date : 10.12.2022
- Analysis Completion Date : 13.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	54.1	53.1	52.7	µg / m ³	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 / m ³	25.10	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.0	8.7	7.7	µg / m ³	8.47	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	14.9	13.8	13.2	µg / m ³	13.97	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.9	7.4	7.2	µg / m ³	7.3	100
6	Lead	IS-5182(Part22) - 2004	0.031	0.030	0.030	µg / m ³	0.030	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.38	0.37	0.34	mg / m ³	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	1.26	1.24	1.22	ng / m ³	1.24	20

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



Authorized Signatory

B. Chinnna Lingana Gouda
Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
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E-mail : 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)
Vyasnakere, 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 : 09.12.2022
- Sample Code : 20993
- Analysis Starting Date : 10.12.2022
- Analysis Completion Date : 13.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



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

:- END OF REPORT:-

- Note :
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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)
Vyasnakere, 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 : 09.12.2022
- Sample Code : 24818
- Analysis Starting Date : 10.12.2022
- Analysis Completion Date : 13.12.2022
- Sample Tested as Received

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

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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

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, 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 : 09.12.2022
6. Sample Code : 20996
7. Analysis Starting Date : 10.12.2022
8. Analysis Completion Date : 13.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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
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Analysed by



:- END OF REPORT :-

Authorized Signatory

B.Chinnna Lingana Gouda
Chief executive of the laboratory

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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000023642F

Report Issued Date: 13.12.2022

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 09.12.2022
6. Sample Code : 24819
7. Analysis Starting Date : 10.12.2022
8. Analysis Completion Date : 13.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	51.0	50.2	49.0	µg / m ³	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 / m ³	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 NO _x	IS-5182(Part-6) - 2006	13.0	12.4	11.8	µg / m ³	12.40	80
5	Ozone as O ₃	IS 5182(part-9)1974	7.0	6.9	6.8	µg / m ³	6.90	100
6	Lead	IS-5182(Part22) - 2004	0.24	0.22	0.20	µg / m ³	0.22	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.21	0.20	0.18	mg / m ³	0.20	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	1.25	1.24	1.20	ng / m ³	1.23	20

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

Analysed by



:- END OF REPORT :-

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

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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, 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** : 09.12.2022
- Sample Code** : 20994
- Analysis Starting Date** : 10.12.2022
- Analysis Completion Date** : 13.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT :-

Authorized Signatory

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: TC720722000023643F

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** : 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** : 09.12.2022
- Sample Code** : 24820
- Analysis Starting Date** : 10.12.2022
- Analysis Completion Date** : 13.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	51.0	49.8	48.4	µg / m ³	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 / m ³	16.70	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	7.4	6.4	6.2	µg / m ³	6.67	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	16.0	14.8	13.8	µg / m ³	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 / m ³	0.05	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.25	0.24	0.22	mg / m ³	0.24	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	1.25	1.29	1.28	ng / m ³	1.27	20

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

Analysed by



--- END OF REPORT ---

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

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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)
Vysanakere, 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** : 09.12.2022
- Sample Code** : 20995
- Analysis Starting Date** : 10.12.2022
- Analysis Completion Date** : 13.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT:-

Authorized Signatory

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: 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 : MSV Analytical Laboratories, Bellary.
- Particulars of the sample : Sample collected with RDS APM460 and FDS GTI-131
- Date of Sample Receipt : 13.12.2022
- Sample Code : 25233
- Analysis Starting Date : 14.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	53.8	52.3	51.1	µg / m ³	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 / m ³	18.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.7	8.45	7.55	µg / m ³	8.57	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	18.5	16.75	16.0	µg / m ³	17.08	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.7	8.4	8.0	µg / m ³	8.37	100
6	Lead	IS-5182(Part22) - 2004	0.025	0.022	0.018	µg / m ³	0.022	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.31	0.26	mg / m ³	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	1.26	1.22	1.18	ng / m ³	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 REPORT:-

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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/21114

Report Issued Date: 16.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, 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 : 13.12.2022
- Sample Code : 21114
- Analysis Starting Date : 14.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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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: TC720722000023965F

Report Issued Date: 16.12.2022

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, 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 : 13.12.2022
6. Sample Code : 25232
7. Analysis Starting Date : 14.12.2022
8. Analysis Completion Date : 16.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	59.2	58.4	57.1	µg / m ³	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 / m ³	19.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	10.25	8.9	8.5	µg / m ³	9.22	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	16.15	16.05	14.9	µg / m ³	15.70	80
5	Ozone as O ₃	IS 5182(part-9)1974	12.4	12.0	11.4	µg / m ³	11.93	100
6	Lead	IS-5182(Part22) - 2004	<0.5	<0.5	<0.5	µg / m ³	<0.5	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.36	0.32	0.28	mg / m ³	0.32	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	<1.0	<1.0	<1.0	ng / m ³	<1.0	20

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

Analysed by



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

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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/2022/21111

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 : 13.12.2022
- Sample Code : 21111
- Analysis Starting Date : 14.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.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)
Vyasnakere, 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 : 13.12.2022
- Sample Code : 25235
- Analysis Starting Date : 14.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

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

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



:- END OF REPORT :-

Authorized Signatory

B.Chirna Lingana Gouda
Chief executive of the laboratory

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/21112

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 : MSV Analytical Laboratories, Bellary.
- Particulars of the sample : Sample collected with RDS APM460 and FDS GT1-131
- Date of Sample Receipt : 13.12.2022
- Sample Code : 21112
- Analysis Starting Date : 14.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



Authorized Signatory

B.Chinga Lingana Gouda
Chief executive of the laboratory

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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: TC720722000023967F

Report Issued Date: 16.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location : Vysanakere Village
- Sample Collected By : MSV Analytical Laboratories, Bellary.
- Particulars of the sample :
- Date of Sample Receipt : 13.12.2022
- Sample Code : 25234
- Analysis Starting Date : 14.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	53.1	52.7	51.3	µg / m ³	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 / m ³	18.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.5	8.5	7.3	µg / m ³	8.43	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	15.8	13.75	13.0	µg / m ³	14.18	80
5	Ozone as O ₃	IS 5182(part-9)1974	7.8	7.5	7.2	µg / m ³	7.50	100
6	Lead	IS-5182(Part22) - 2004	0.017	0.014	0.012	µg / m ³	0.014	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.24	0.22	mg / m ³	0.25	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	1.21	1.17	1.13	ng / m ³	1.17	20

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



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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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)
Vysanakere, 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 : 13.12.2022
6. Sample Code : 21113
7. Analysis Starting Date : 14.12.2022
8. Analysis Completion Date : 16.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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
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Analysed by



:- END OF REPORT :-

Authorized Signatory

B.Chinnna Lingana Gouda
Chief executive of the laboratory

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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000024096F

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 : 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 : 16.12.2022
- Sample Code : 25398
- Analysis Starting Date : 17.12.2022
- Analysis Completion Date : 20.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	53.2	52.7	51.3	µg / 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 / m ³	15.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	7.4	6.2	7.55	µg / m ³	7.05	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	14.8	12.95	11.95	µg / m ³	13.23	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.2	7.8	7.5	µg / m ³	7.83	100
6	Lead	IS-5182(Part22) - 2004	0.032	0.028	0.024	µg / m ³	0.028	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.30	0.26	mg / m ³	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	1.28	1.25	1.23	ng / m ³	1.25	20

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

Analysed by



:- END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 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

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, 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 : 16.12.2022
- Sample Code : 21291
- Analysis Starting Date : 17.12.2022
- Analysis Completion Date : 20.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



-. END OF REPORT:-

Authorized Signatory

B.Chirma Lingana Gouda
Chief executive of the laboratory

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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000024093F

Report Issued Date: 20.12.2022

- Name of the Project** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, 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** : 17.12.2022
- Analysis Completion Date** : 20.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	54.8	53.7	52.3	µg / m ³	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 / m ³	15.47	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.5	8.45	7.3	µg / m ³	8.42	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	13.2	11.25	11.1	µg / m ³	11.85	80
5	Ozone as O ₃	IS 5182(part-9)1974	9.2	8.5	8.1	µg / m ³	8.60	100
6	Lead	IS-5182(Part22) - 2004	0.024	0.021	0.017	µg / m ³	0.021	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.28	0.24	mg / m ³	0.28	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	1.26	1.24	1.21	ng / m ³	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

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/21288

Report Issued Date: 20.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 21288
- Analysis Starting Date : 17.12.2022
- Analysis Completion Date : 20.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



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)
Vysanakere, 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 : 16.12.2022
- Sample Code : 25398
- Analysis Starting Date : 17.12.2022
- Analysis Completion Date : 20.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	50.7	49.5	48.5	µg / m ³	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 / m ³	13.73	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	7.0	6.5	7.3	µg / m ³	6.93	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	14.5	12.65	12.4	µg / m ³	13.18	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.4	8.1	7.6	µg / m ³	8.03	100
6	Lead	IS-5182(Part22) - 2004	0.021	0.017	0.014	µg / m ³	0.017	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.42	0.38	0.34	mg / m ³	0.38	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	1.32	1.28	1.23	ng / m ³	1.28	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

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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)
Vyasankere, 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 : 21289
7. Analysis Starting Date : 17.12.2022
8. Analysis Completion Date : 20.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000024095F

Report Issued Date: 20.12.2022

- Name of the Project** : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location** : Vysanakere Village
- Sample Collected By** : MSV Analytical Laboratories, Bellary.
- Particulars of the sample** :
- Date of Sample Receipt** : 16.12.2022
- Sample Code** : 25399
- Analysis Starting Date** : 17.12.2022
- Analysis Completion Date** : 20.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	52.6	51.8	50.2	µg / m ³	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 / m ³	19.90	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.8	7.15	6.5	µg / m ³	7.48	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	13.5	11.9	10.75	µg / m ³	12.05	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.4	8.1	7.6	µg / m ³	8.03	100
6	Lead	IS-5182(Part22) - 2004	0.016	0.013	0.011	µg / m ³	0.013	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.32	0.28	0.25	mg / m ³	0.28	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	1.21	1.17	1.14	ng / m ³	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

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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/2022/21290

Report Issued Date: 20.12.2022

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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
6. Sample Code : 21290
7. Analysis Starting Date : 17.12.2022
8. Analysis Completion Date : 20.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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
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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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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.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.
- 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 : 22.12.2022
- Sample Code : 26007
- Analysis Starting Date : 23.12.2022
- Analysis Completion Date : 26.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
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 / m ³	23.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	10.9	11.6	12.0	µg / m ³	23.53	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	20.6	21.2	21.8	µg / m ³	11.50	80
5	Ozone as O ₃	IS 5182(part-9)1974	10.2	10.4	10.1	µg / m ³	21.20	100
6	Lead	IS-5182(Part22) - 2004	0.024	.025	0.023	µg / m ³	10.23	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.32	mg / m ³	0.024	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	1.20	1.20	1.19	ng / m ³	1.20	20

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



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

END OF REPORT

- Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
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/2022/21458

Report Issued Date: 26.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, 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 : 22.12.2022
- Sample Code : 21458
- Analysis Starting Date : 23.12.2022
- Analysis Completion Date : 26.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



--: END OF REPORT:--

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



TC-7207

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 : 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 : 26009
- Analysis Starting Date : 23.12.2022
- Analysis Completion Date : 26.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	54.2	55.1	55.6	µg / m ³	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 / m ³	16.73	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.8	9.2	9.5	µg / m ³	9.17	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	14	14.1	14.2	µg / m ³	14.10	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.6	8.8	8.4	µg / m ³	8.60	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.027	0.025	µg / m ³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.30	0.32	0.28	mg / m ³	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 / m ³	1.18	20

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



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
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E-mail : 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)
Vyasankere, 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
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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
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Analysed by



Authorized Signatory

B.Chinnalingana Gouda
Chief executive of the laboratory



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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000025520F

Report Issued Date: 26.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 23.12.2022
- Analysis Completion Date : 26.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	52.1	52.5	53.1	µg / m ³	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 / m ³	15.73	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.2	8.8	9.5	µg / m ³	8.83	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	15.8	16.4	17.1	µg / m ³	16.43	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.0	8.2	7.8	µg / m ³	8.00	100
6	Lead	IS-5182(Part22) - 2004	0.028	0.029	0.027	µg / m ³	0.028	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.24	0.26	0.22	mg / m ³	0.24	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 / m ³	1.18	20

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



-. END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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

MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: MSVAL/2022/21460

Report Issued Date: 26.12.2022

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 22.12.2022
6. Sample Code : 21460
7. Analysis Starting Date : 23.12.2022
8. Analysis Completion Date : 26.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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
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Analysed by



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Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: 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 : 22.12.2022
- Sample Code : 26008
- Analysis Starting Date : 23.12.2022
- Analysis Completion Date : 26.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	56	56.5	57.1	µg / m ³	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 / m ³	17.27	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.2	9.5	9.9	µg / m ³	9.53	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	13.4	13.4	13.4	µg / m ³	13.40	80
5	Ozone as O ₃	IS 5182(part-9)1974	7.4	7.6	7.2	µg / m ³	7.40	100
6	Lead	IS-5182(Part22) - 2004	0.023	0.024	0.022	µg / m ³	0.023	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.28	0.30	0.26	mg / m ³	0.28	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	1.11	1.09	ng / m ³	1.10	20

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



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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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)
Vysanakere, 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
- Sample Code : 21461
- Analysis Starting Date : 23.12.2022
- Analysis Completion Date : 26.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



Authorized Signatory

B.Chinnal Lingana Gouda
Chief executive of the laboratory

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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000025368F

Report Issued Date: 23.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location : Sniore 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
- Sample Code : 25759
- Analysis Starting Date : 21.12.2022
- Analysis Completion Date : 23.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	56.1	56.6	57.2	µg / m ³	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 / m ³	29.53	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 20018.7	9.9	10.2	10.9	µg / m ³	10.33	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	18.8	19.4	20.1	µg / m ³	19.43	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.6	8.8	8.4	µg / m ³	8.60	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.027	0.025	µg / m ³	0.026	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.36	0.38	0.34	mg / m ³	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 / m ³	1.10	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.Chihna 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: 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)
Vyasankere, 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
8. Analysis Completion Date : 23.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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
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Analysed by



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Authorized Signatory

B.Chinna Lingana Gouda
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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: 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 : 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 : 25760
- Analysis Starting Date : 21.12.2022
- Analysis Completion Date : 23.12.2022
- Sample Tested as Received

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

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



:- END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note:
- The results listed only to the tested samples & applicable parameters,
 - Water samples will be 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.
 - This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
 - Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
 - Sampling is not done by us unless otherwise specified. 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/2022/21411

Report Issued Date: 23.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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 : 20.12.2022
- Sample Code : 21411
- Analysis Starting Date : 21.12.2022
- Analysis Completion Date : 23.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: TC720722000025370F

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 : 25761
7. Analysis Starting Date : 21.12.2022
8. Analysis Completion Date : 23.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	52.1	52.5	53.1	µg / m ³	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 / m ³	16.60	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	6.1	6.8	7.1	µg / m ³	6.67	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	13.4	13.4	13.4	µg / m ³	13.40	80
5	Ozone as O ₃	IS 5182(part-9)1974	6.8	7.0	6.6	µg / m ³	6.80	100
6	Lead	IS-5182(Part22) - 2004	0.016	0.017	0.015	µg / m ³	0.016	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.22	0.24	0.20	mg / m ³	0.22	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 / m ³	1.18	20

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



Authorized Signatory
B. Chinna Lingana Gouda
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 be 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/2022/21412

Report Issued Date: 23.12.2022

1. Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, 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
7. Analysis Starting Date : 21.12.2022
8. Analysis Completion Date : 23.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



END OF REPORT

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



MSV Analytical Laboratories

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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.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)
Vyasnakere, 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 : 20.12.2022
- Sample Code : 25762
- Analysis Starting Date : 21.12.2022
- Analysis Completion Date : 23.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	56.1	56.4	57.1	µg / m ³	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 / m ³	20.57	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.8	9.2	9.6	µg / m ³	9.20	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.6	18.2	18.8	µg / m ³	18.20	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.0	8.2	7.8	µg / m ³	8.00	100
6	Lead	IS-5182(Part22) - 2004	0.022	0.023	0.021	µg / m ³	0.022	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.34	0.36	0.32	mg / m ³	0.34	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 / m ³	1.18	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.Chinga Lingana Gouda
Chief executive of the laboratory

- Note: 1. The results listed only to the tested samples & applicable parameters,
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E-mail : 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)
Vyanakere, 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 : 20.12.2022
- Sample Code : 21413
- Analysis Starting Date : 21.12.2022
- Analysis Completion Date : 23.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



-: END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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



MSVAL/A/F/16/03

ANALYSIS REPORT OF AMBIENT AIR QUALITY

Test Report No: 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 : 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 : 27.12.2022
- Sample Code : 26586
- Analysis Starting Date : 28.12.2022
- Analysis Completion Date : 30.12.2022
- Sample Tested as Received

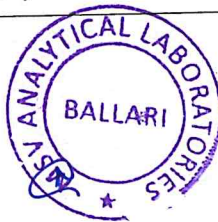
S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	57.9	56.2	55.1	µg / m ³	56.40	100
2	Particulate Matter or PM _{2.5} µg/m ³	LAB SOP MSVAL/SOP/A/005	28.3	27.4	25.1	µg / m ³	26.93	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	12.9	11.97	11.18	µg / m ³	12.02	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.62	16.66	14.91	µg / m ³	16.40	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 / m ³	0.029	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.40	0.38	0.32	mg / m ³	0.37	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	1.30	1.26	1.22	ng / m ³	1.26	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,
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E-mail : msv.lab01@gmail.com, Labmsv@gmail.com, Website : www.msvbellary.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** : 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** : 27.12.2022
- Sample Code** : 21896
- Analysis Starting Date** : 28.12.2022
- Analysis Completion Date** : 30.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



MSV Analytical Laboratories

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MSVAL/AXF/16/03

TC-7207

ANALYSIS REPORT OF AMBIENT AIR QUALITY

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)
Vyasnakere, 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 : 27.12.2022
- Sample Code : 26587
- Analysis Starting Date : 28.12.2022
- Analysis Completion Date : 30.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	54.2	53.2	51.0	µg / m ³	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 / m ³	16.43	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	8.12	7.10	6.73	µg / m ³	7.32	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	17.27	15.06	13.75	µg / m ³	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 / m ³	0.029	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.38	0.34	0.32	mg / m ³	0.35	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	1.30	1.26	1.22	ng / m ³	1.26	20

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



Authorized Signatory
B.Chinna Lingana Gouda
Chief executive of the laborator:

-: END OF REPORT:-

- Note : 1. The results listed only to the tested samples & applicable parameters,
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Sanganakallu Road, KEB Circle, Bellary-583103. Contact No : Mob : 94498 03895, (O) : 08392-255169,
E-mail : msv.lab01@gmail.com, Labmsv@gmail.com, Website : www.msvbellary.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)
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 : 27.12.2022
- Sample Code : 21897
- Analysis Starting Date : 28.12.2022
- Analysis Completion Date : 30.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Toleranc limits
			1	2	3			
10	Benzene as C ₆ H ₆	IS:5182(part 11) - 2006	<0.01	<0.01	<0.01	µg / m ³	<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



:- END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



MSV Analytical Laboratories

Recognition by MoEF under Environment (Protection) Act, 1986 and 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: TC720722000029988F

Report Issued Date: 30.12.2022

- Name of the Project : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the location : Vysanakere Village
- Sample Collected By : MSV Analytical Laboratories, Bellary.
- Particulars of the sample :
- Date of Sample Receipt : 27.12.2022
- Sample Code : 26588
- Analysis Starting Date : 28.12.2022
- Analysis Completion Date : 30.12.2022
- Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	51.3	50.2	49.2	µg / m ³	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 / m ³	26.93	60
3	Sulphur Dioxide as SO _x	IS-5182(Part-2) - 2001	9.29	7.85	8.07	µg / m ³	12.02	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6) - 2006	14.91	13.70	13.80	µg / m ³	16.40	80
5	Ozone as O ₃	IS 5182(part-9)1974	8.8	7.3	6.5	µg / m ³	8.50	100
6	Lead	IS-5182(Part22) - 2004	0.026	0.024	0.022	µg / m ³	0.029	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.32	0.20	mg / m ³	0.37	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	1.26	1.24	0.22	ng / m ³	1.26	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

:- END OF REPORT :-

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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)
Vysanakere, 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
8. Analysis Completion Date : 30.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



:- END OF REPORT :-

Authorized Signatory

B.Chinna Lingana Gouda

Chief executive of the laboratory



MSV Analytical Laboratories

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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)
Vyasnakere, 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
- Analysis Starting Date** : 28.12.2022
- Analysis Completion Date** : 30.12.2022
- Sample Tested as Received**

S.No	Parameter	Protocols	Shift wise results			Units	Result in Avg.	Tolerance limits
			1	2	3			
1	Particulate Matter PM ₁₀ µg/m ³	IS-5182(Part-23) - 2006	57.3	56.2	55.5	µg / m ³	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 / m ³	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 NO _x	IS-5182(Part-6) - 2006	17.17	16.46	15.01	µg / m ³	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 / m ³	0.025	1
7	Carbon Monoxide as CO	LAB SOP MSVAL/SOP/A/007	0.26	0.32	0.22	mg / m ³	0.27	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	1.26	1.22	1.20	ng / m ³	1.23	20

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



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laborator

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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)
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 : 27.12.2022
6. Sample Code : 21899
7. Analysis Starting Date : 28.12.2022
8. Analysis Completion Date : 30.12.2022
9. Sample Tested as Received

S.No	Parameter	Protocols	Shift wise results			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 / m ³	<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



-: END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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



MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMISSION

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)
Vyanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Stack ID : Coke Screening & Store
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of Sample Collected : Sample collected with VSS - 1
5. Date of Sample Receipt : 27.12.2022
6. Sample Code : 26456
7. Analysis Starting Date : 28.12.2022
8. Analysis Completion Date : 30.12.2022
9. Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	27.12.2022
Fuel Used	---
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

INFERENCE	As per GSR 277 (E) Standards. 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,
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MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMISSION

Test Report No: TC720722000023493F

Report Issued Date: 30.12.2022

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Stack ID : Coke Cutter
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 Code : 26457
7. Analysis Starting Date : 28.12.2022
8. Analysis Completion Date : 30.12.2022
9. Sample Tested as Received

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 (m ²)	0.38465

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	24.2	50

INFERENCE	As per KSPCB 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

Note : 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
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TC-7207

MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMISSION

Test Report No: TC720722000023494F

Report Issued Date : 30.12.2022

- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Stack ID : Coal Crushing Area
- Sample Collected By : MSV Analytical Laboratories, Bellary.
- Particulars of Sample Collected : Sample collected with VSS - 1
- Date of Sample Receipt : 27.12.2022
- Sample Code : 26458
- Analysis Starting Date : 28.12.2022
- Analysis Completion Date : 30.12.2022
- Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	27.12.2022
Fuel Used	---
Stack Temperature (°C)	35
Velocity (m/s)	6.2
Height (m)	15mtrs AGL
Diameter (m)	0.75
Cross sectional area (m ²)	0.44156

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	22.4	50

INFERENCE	As per KSPCB Standards 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:-

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MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMISSION

Test Report No: TC720722000023495F

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.
2. Stack ID : Coke Oven Battery - Passes Through WHRB-1
3. Sample Collected By : MSV Analytical Laboratories, Bellary.
4. Particulars of Sample Collected : Sample collected with VSS - 1
5. Date of Sample Receipt : 12.12.2022
6. Sample Code : 25035
7. Analysis Starting Date : 13.12.2022
8. Analysis Completion Date : 16.12.2022
9. Sample Tested as Received

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 (m ²)	16.61
Flow/Discharge Rate of Gas Nm ³ /Hr	388674

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	28.6	50
Sulphur dioxide	IS-11255(Part2) - 1985	mg/Nm ³	27.2	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm ³	62.4	500
Carbon Monoxide as(CO)	IS 13270	%	0.17	Max 1%
Oxygen as O ₂	Instrument Method	%	5.7	---

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



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

:- END OF REPORT:-

- Note : 1. The results listed only to the tested samples & applicable parameters,
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ANALYSIS REPORT FOR SOURCE EMISSION

Test Report No: TC720722000023496F

Report Issued Date : 30.12.2022

- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Stack ID : Coke Oven Battery - Passes Through WHRB-2
- Sample Collected By : MSV Analytical Laboratories, Bellary.
- Particulars of Sample Collected : Sample collected with VSS - 1
- Date of Sample Receipt : 12.12.2022
- Sample Code : 25039
- Analysis Starting Date : 13.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

GENERAL DETAILS

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 (m ²)	16.61
Flow/Discharge Rate of Gas Nm ³ /Hr	418572

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	29.4	50
Sulphur dioxide	IS-11255(Part2) - 1985	mg/Nm ³	33.2	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm ³	57.2	500
Carbon Monoxide as(CO)	IS 13270	%	0.25	Max 1%
Oxygen as O ₂	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



:- END OF REPORT :-

Authorized Signatory

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

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



MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMISSION

Test Report No: TC720722000023497F

Report Issued Date: 30.12.2022

- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Stack ID : Ferro Alloy ARC Furnace - 5
- Sample Collected By : MSV Analytical Laboratories, Bellary.
- Particulars of Sample Collected : Sample collected with VSS - 1
- Date of Sample Receipt : 12.12.2022
- Sample Code : 25039
- Analysis Starting Date : 13.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

GENERAL DETAILS

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 (m ²)	4.90625
Flow/Discharge Rate of Gas Nm ³ /Hr	113040

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	32.4	150
Sulphur dioxide	IS-11255(Part2) - 1985	mg/Nm ³	20.6	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm ³	48.7	500
Carbon Monoxide as(CO)	IS 13270	%	0.24	Max 1%
Oxygen as O ₂	Instrument Method	%	5.8	---

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

Analysed by



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

- Note : 1. The results listed only to the tested samples & applicable parameters,
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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



MSVAL/A/F/18/03

ANALYSIS REPORT FOR SOURCE EMISSION

Test Report No: TC720722000023498F

Report Issued Date: 30.12.2022

- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Stack ID : Ferro Alloy ARC Furnace - 3
- Sample Collected By : MSV Analytical Laboratories, Bellary.
- Particulars of Sample Collected : Sample collected with VSS - 1
- Date of Sample Receipt : 12.12.2022
- Sample Code : 25036
- Analysis Starting Date : 13.12.2022
- Analysis Completion Date : 16.12.2022
- Sample Tested as Received

GENERAL DETAILS

Date of Monitoring	12.12.2022
Fuel Used	----
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 Nm ³ /Hr	105975

RESULTS

Parameters	Protocol	Unit	Result	GSR 277 (E) Standards
Particulate Matter	IS-11255(Part1) - 1985	mg/Nm ³	34.6	150
Sulphur dioxide	IS-11255(Part2) - 1985	mg/Nm ³	22.2	800
Nitrogen dioxide	IS-11255(Part7) - 2005	mg/Nm ³	51.6	500
Carbon Monoxide as(CO)	IS 13270	%	0.28	Max 1%
Oxygen as O ₂	Instrument Method	%	5.7	---

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

Analysed by



:- END OF REPORT:-

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

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



TC-7207

ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC720722000023964F

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. Name of the sample : Surface water - Tungabhadra Reservoir
3. 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 Code : 25231
8. 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
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<1	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.43	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	872	---
Chemical parameters					
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 CaCO ₃	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 CO ₂	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



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

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : MSVAL/2022/ 21127

Report Issued Date: 16.12.2022

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasankere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the sample : Surface water - Tungabhadra Reservoir
3. 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 Code : 21127
8. 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					
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 rd EDITION -3112 B	mg/l	<0.002	0.05
27	Mercury as Hg	APHA 23 rd 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



End of the Report

Authorized Signatory

B.Chinna Lingana Gouda

B.Chinna Lingana Gouda
Chief Executive of the Laboratory

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E-mail : msv.lab01@gmail.com, labmsv@gmail.com, Website : www.msvbellary.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)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water - Tungabhadra Reservoir
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 Receipt : 13.12.2022
7. Sample Code : 21128
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	16	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,
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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC720722000023939F

Report Issued Date: 16.12.2022

- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
- Name of the sample : Surface water - Canal Near Vysanakere
- Sample Collected By : MSV Analytical Laboratories
- Sample Quantity : 2 Liters
- Sample Description/condition : Good/Satisfactory
- Date of Sample Receipt : 13.12.2022
- Sample Code : 25190
- Analysis Starting Date : 14.12.2022
- Analysis Completion date : 16.12.2022
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	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 parameters					
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 CO ₂	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,
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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)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the sample : Surface water - Canal Near Vysanakere
3. 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 Code : 21129
8. 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					
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 rd EDITION -3112 B	mg/l	<0.001	0.05
27	Mercury as Hg	APHA 23 rd 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,
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MSVAL/A/F/18/03

ANALYSIS REPORT FOR WATER IN MICROBIOLOGY

Test Report No :MSVAL/2022/ 21130

Report Issued Date: 16.12.2022

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water - Canal Near Vysanakere
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 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.
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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,
2. Water samples will be destroyed after 10 days, Filter papers & Thimbles will be destroyed 3 months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction only.
5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.



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

E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: TC720722000023938F

Report Issued Date: 16.12.2022

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the sample : Surface water - Dhananayakana Kere Water
3. 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 Code : 25189
8. 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
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.99	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	748	---
Chemical parameters					
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 CO ₂	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.Chinnna 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.msvbellary.com

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

- Test Report No :MSVAL/2022/ 21131 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.
 - Name of the sample : Surface water - Dhananayakana Kere Water
 - Sample Collected By : MSV Analytical Laboratories
 - Sample Quantity : 2 Liters
 - Sample Description/condition : Good/Satisfactory
 - Date of Sample Receipt : 13.12.2022
 - Sample Code : 25231
 - Analysis Starting Date : 14.12.2022
 - Analysis Completion date : 16.12.2022
 - 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	0.016	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 23 rd 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	%	22.6	---
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



End of the Report

Authorized Signatory

B.Chinna Lingana Gouda
Chief Executive of the Laboratory

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E-mail : msv.lab01@gmail.com, labmsv@gmail.com, Website : www.msvbellary.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)
Vyasnakere, 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 Receipt : 13.12.2022
7. Sample Code : 21132
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	14	50

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

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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



TC-7207

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.
- Name of the sample : Surface water - Water body near Narayadevarakere
- Sample Collected By : MSV Analytical Laboratories
- Sample Quantity : 2 Liters
- Sample Description/condition : Good/Satisfactory
- Date of Sample Receipt : 13.12.2022
- Sample Code : 25187
- Analysis Starting Date : 14.12.2022
- Analysis Completion date : 16.12.2022
- Sample tested As Received

S.No	Parameters	Protocol	Unit	Result	Standards as per IS - 2296
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	Un objectionable	Un objectionable
4	pH	IS : 3025(part-11)	---	7.98	6.5-8.5
5	Conductivity	IS-3025 (part 14)	µs/cm	6.48	---
Chemical parameters					
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 CO ₂	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



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

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

- Test Report No :MSVAL/2022/ 21133 Report Issued Date: 16.12.2022
- Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vysanakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
 - Name of the sample : Surface water - Water body near
Narayadevarakere
 - Sample Collected By : MSV Analytical Laboratories
 - Sample Quantity : 2 Liters
 - Sample Description/condition : Good/Satisfactory
 - Date of Sample Receipt : 13.12.2022
 - Sample Code : 21133
 - Analysis Starting Date : 14.12.2022
 - Analysis Completion date : 16.12.2022
 - 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	0.014	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 rd EDITION -3112 B	mg/l	<0.001	0.05
27	Mercury as Hg	APHA 23 rd 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



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,
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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)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Sample Type : Surface water - Water body near Narayadevarakere
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 Receipt : 13.12.2022
7. Sample Code : 21134
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	22	50

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

Verified by



Authorized Signatory

B.Chinn Lingana Gouda
Chief Executive of the Laboratory

End of the 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/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No : TC720722000023937F

Report Issued Date: 16.12.2022

1. Name of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant)
Vyasnakere, Hanumanahalli Village,
Hospet Taluk, Bellary District, Karnataka.
2. Name of the sample : Surface water - Pond Water Ayyanahalli
3. 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 Code : 25188
8. 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
Physical parameters					
1	Taste	IS : 3025(part-7)	---	Agreeable	Agreeable
2	Color	IS : 3025(part-4)	---	<5	10
3	Odor	IS : 3025(part-5)	---	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	---
Chemical parameters					
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 CO ₂	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

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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 08392-255169,
E-mail : msv.lab01@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com

MSVAL/W/F/13/00

ANALYSIS REPORT OF WATER QUALITY

Test Report No: MSVAL/2022/21135

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. Name of the sample : Surface water - Pond Water Ayyanahalli
3. 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 Code : 21135
8. 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					
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 rd EDITION -3112 B	mg/l	<0.001	0.05
27	Mercury as Hg	APHA 23 rd 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.

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 be destroyed after 10 days, Filter papers & Thimbles will be destroyed 3 months 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 asterisk are not accredited by NABL.



MSV Analytical Laboratories

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

C.M.C Ward No 18 & C.T.C W.No.16 T.S No. 695/A/32/B1, Block No 19 (1st & 2nd Floor)
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E-mail : 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)
Vysanakere, 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 Quantity : 250 ml (Sterilized Bottle)
5. Sample description/condition : 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.
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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,
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.