



BMM Ispat Ltd.,

ENVIRONMENTAL MONITORING REPORT



**Danapur Village, Hosapete Taluk,
Vijayanagara District, PIN-583222,
Karnataka.**

JANUARY-2025

Prepared by



GLOBAL ENVIRONMENT & MINING SERVICES

NABL & MOEFCC Recognized Laboratory

(Consulting Engineers, Mine Designers, Geologists & Surveyors)

3rd main road, Basaveswara badavane

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Tel : 08394 355369

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PREFACE

The industries should monitor environmental parameters as per the frequency and locations given in the CFE/CFO. And the same should be submitted on every month to the respective pollution control board.


As part of the conditions and inherent concern on health of the employees and surroundings **M/s. BMM Ispat Ltd.**, as appointed **M/s. Global Environment & Mining Services**, Hosapete, to carry out the environmental pollution monitoring on AAQ Monitoring, Fugitive monitoring, Noise Monitoring, Water Analysis & Stack monitoring pollution and submit the same to the Pollution Control Board.

Accordingly, M/s. Global Environment & Mining Services, Hosapete, carried out the pollution monitoring as per the standard sampling methods prescribed by CPCB, for AAQ Monitoring, Fugitive monitoring within the plant, Stack Monitoring & Personal Dust Sampling as per the CFO. These monitoring has been carried out in a frequency as mentioned in the CFO and the same report is being submitted to the Board.

We sincerely thank to officials of **M/s. BMM Ispat Ltd.**, for their valuable co-ordination & support during the sampling and reporting.

for GLOBAL Environment & Mining Services

Place: Hosapete
Date:03.02.2025


K. Ramakrishna Reddy
(Technical Manager)





GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

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Website : www.globalmining.in



TC-5323

ANNEXURE-01
GEMS-LD/TF/11/01**ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA**

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
 Month : **JANUARY-2025**
 Location : **A1-Danapur Village**
 Duration of Monitoring : 24 Hour
 Report Issued Date : **03.02.2025**
 Report Number : **ULR-TC532324000004180F**

RESULTS

| Parameters | | | PM ₁₀ [µg/m ³] | | PM _{2.5} [µg/m ³] | | SO ₂ [µg/m ³] | | NO ₂ [µg/m ³] | |
|------------------|-------------------------|-------------|--|-----|---|-----|---|-----|---|-----|
| Reference Method | | | IS:5182: 2006 (Part-23) (RF-2017) | | USEPA 2001 Gravimetric Method | | IS:5182: 2001 (Part-2) (RF-2017) | | IS:5182: (Part-6) 2006 (RF-2017) | |
| Date of Sampling | Date of Sample Received | Sample Code | Result | STD | Result | STD | Result | STD | Result | STD |
| 01.01.2025 | 02.01.2025 | 6840 | 80.10 | 100 | 24.99 | 60 | 11.15 | 80 | 14.31 | 80 |
| 02.01.2025 | 03.01.2025 | 6864 | 69.36 | | 21.59 | | 9.36 | | 15.50 | |
| 06.01.2025 | 07.01.2025 | 6998 | 77.05 | | 29.19 | | 14.69 | | 16.12 | |
| 07.01.2025 | 08.01.2025 | 7048 | 66.78 | | 22.09 | | 11.15 | | 14.34 | |
| 15.01.2025 | 16.01.2025 | 7255 | 74.39 | | 26.62 | | 10.13 | | 13.11 | |
| 16.01.2025 | 17.01.2025 | 7292 | 72.31 | | 27.47 | | 14.27 | | 15.37 | |
| 20.01.2025 | 21.01.2025 | 7390 | 62.16 | | 17.53 | | 11.69 | | 16.39 | |
| 21.01.2025 | 22.01.2025 | 7418 | 75.72 | | 25.91 | | 15.53 | | 16.01 | |
| Average | | | 72.23 | | 24.42 | | 12.25 | | 15.14 | |

| SL NO | INSTRUMENT DETAILS | | |
|-------|----------------------|--------------------------------|--------------------------------|
| 1 | Instrument Name | Respirable Dust Sampler (RDS) | Fine Particulate Sampler (FPS) |
| 2 | Make & Model | Enviro instruments / EI-142 NL | Enviro instruments / EI-133 |
| 3 | Serial No | R.D.S. / 197-C-21 | PM2.5/PM10 Sampler / 158-K-20 |
| 4 | Calibration Date | 08.07.2024 | 28.03.2024 |
| 5 | Calibration Due Date | 07.07.2025 | 27.03.2025 |

INFERENCE As per NAAQMS Standards (2009),
Report Status: - Measured Values for the above parameters are within the limit.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

**Note:**

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without 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 Hosapete jurisdiction only.
- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognised by Government of Karnataka, Maharashtra, Goa for DGP survey



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ANNEXURE-01
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyzer
 Month : JANUARY-2025
 Location : A1-Danapur Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 03.02.2025
 Report Number : GEMS/BMM/NAAQ/2024-25/4180

RESULTS

| Sl. No. | Date of Sampling | Sample Code | CO {1 Hour} [mg/m ³] | Standard |
|---------|------------------|-------------|----------------------------------|----------|
| 1 | 01.01.2025 | 6840 | 0.15 | 4.0 |
| 2 | 02.01.2025 | 6864 | 0.11 | |
| 3 | 06.01.2025 | 6998 | 0.12 | |
| 4 | 07.01.2025 | 7048 | 0.15 | |
| 5 | 15.01.2025 | 7255 | 0.16 | |
| 6 | 16.01.2025 | 7292 | 0.12 | |
| 7 | 20.01.2025 | 7390 | 0.17 | |
| 8 | 21.01.2025 | 7418 | 0.13 | |

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)

ND - Not Detected

| Sl. NO | INSTRUMENT DETAILS | |
|--------|----------------------|--|
| 1 | Instrument Name | CO Gas Detector |
| 2 | Make & Model | Vasthi Instruments Pvt Ltd & VS-70-70-CO |
| 3 | Serial No | 180883821 |
| 4 | Calibration Date | 08.07.2024 |
| 5 | Calibration Due Date | 07.07.2025 |

| | |
|-----------|---|
| INFERENCE | As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit |
|-----------|---|

Analyzed By
Priyanka B M
Chemist

Authorized Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-02
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
 Month : JANUARY-2025
 Location : A2-Mariyammanahalli Village
 Duration of Monitoring : 24 Hour
 Report Issued Date : 03.02.2025
 Report Number : ULR-TC532324000004179F

RESULTS

| Parameters | | | PM ₁₀ [µg/m ³] | | PM _{2.5} [µg/m ³] | | SO ₂ [µg/m ³] | | NO ₂ [µg/m ³] | |
|------------------|-------------------------|-------------|--|-----|---|-----|---|-----|---|-----|
| Reference Method | | | IS:5182: 2006 (Part-23) (RF-2017) | | USEPA 2001 Gravimetric Method | | IS:5182: 2001 (Part-2) (RF-2017) | | IS:5182: (Part-6) 2006 (RF-2017) | |
| Date of Sampling | Date of Sample Received | Sample Code | Result | STD | Result | STD | Result | STD | Result | STD |
| 01.01.2025 | 02.01.2025 | 6839 | 74.12 | 100 | 24.23 | 60 | 15.26 | 80 | 15.71 | 80 |
| 02.01.2025 | 03.01.2025 | 6863 | 72.30 | | 28.46 | | 14.16 | | 14.58 | |
| 06.01.2025 | 07.01.2025 | 6997 | 62.90 | | 23.57 | | 10.11 | | 10.39 | |
| 07.01.2025 | 08.01.2025 | 7047 | 65.14 | | 27.84 | | 11.73 | | 11.47 | |
| 16.01.2025 | 17.01.2025 | 7291 | 67.23 | | 22.93 | | 14.98 | | 15.14 | |
| 20.01.2025 | 21.01.2025 | 7389 | 49.92 | | 25.40 | | 12.64 | | 13.69 | |
| 21.01.2025 | 22.01.2025 | 7417 | 87.02 | | 28.16 | | 15.66 | | 16.34 | |
| 22.01.2025 | 23.01.2025 | 7438 | 75.44 | | 24.37 | | 16.26 | | 16.83 | |
| Average | | | 69.26 | | 25.62 | | 13.85 | | 14.27 | |

| SL NO | INSTRUMENT DETAILS | | |
|-------|----------------------|------------------------------------|---------------------------------|
| 1 | Instrument Name | Respirable Dust Sampler (RDS) | Fine Particulate Sampler (FPS) |
| 2 | Make & Model | Greentech instruments / GTI -151-N | Enviro instruments / EI-133 |
| 3 | Serial No | 466-DTE-2023 | PM2.5 / PM10 Sampler / 159-K-20 |
| 4 | Calibration Date | 08.07.2024 | 28.03.2024 |
| 5 | Calibration Due Date | 07.07.2025 | 27.03.2025 |

| | |
|-----------|--|
| INFERENCE | As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit. |
|-----------|--|

Analysed By
 Priyanka B M
 Chemist

Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager



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ANNEXURE-02
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2025
 Location : A2-Mariyammanahalli Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 03.02.2025
 Report Number : GEMS/BMM/NAAQ/2024-25/4179

RESULTS

| Sl. No. | Date of Sampling | Sample Code | CO (1 Hour) [mg/m ³] | Standard |
|---------|------------------|-------------|----------------------------------|----------|
| 1 | 01.01.2025 | 6839 | 0.15 | 4.0 |
| 2 | 02.01.2025 | 6863 | 0.13 | |
| 3 | 06.01.2025 | 6997 | 0.17 | |
| 4 | 07.01.2025 | 7047 | 0.12 | |
| 5 | 16.01.2025 | 7291 | 0.16 | |
| 6 | 20.01.2025 | 7389 | 0.15 | |
| 7 | 21.01.2025 | 7417 | <0.01 | |
| 8 | 22.01.2025 | 7438 | <0.01 | |

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)

ND - Not Detected

| SL NO | INSTRUMENT DETAILS | |
|-------|----------------------|--|
| 1 | Instrument Name | CO Gas Detector |
| 2 | Make & Model | Vasthi Instruments Pvt Ltd & VS-70-70-CO |
| 3 | Serial No | 180883821 |
| 4 | Calibration Date | 08.07.2024 |
| 5 | Calibration Due Date | 07.07.2025 |

| | |
|-----------|---|
| INFERENCE | As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit |
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Analysed By
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TC-5323

ANNEXURE-03
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : JANUARY-2025
Location : A3-Hanumanahalli Village
Duration of Monitoring : 24 Hour
Report Issued Date : 03.02.2025
Report Number : ULR-TC532324000004210F

RESULTS

| Parameters | | | PM ₁₀ [µg/m ³] | | PM _{2.5} [µg/m ³] | | SO ₂ [µg/m ³] | | NO ₂ [µg/m ³] | |
|------------------|-------------------------|-------------|--|-----|---|-----|---|-----|---|-----|
| Reference Method | | | IS:5182: 2006 (Part-23) (RF-2017) | | USEPA 2001 Gravimetric Method | | IS:5182: 2001 (Part-2) (RF-2017) | | IS:5182: (Part-6) 2006 (RF-2017) | |
| Date of Sampling | Date of Sample Received | Sample Code | Result | STD | Result | STD | Result | STD | Result | STD |
| 03.01.2025 | 04.01.2025 | 6885 | 73.35 | 100 | 26.98 | 60 | 11.45 | 80 | 14.06 | 80 |
| 04.01.2025 | 05.01.2025 | 6930 | 55.31 | | 22.30 | | 8.36 | | 12.26 | |
| 06.01.2025 | 07.01.2025 | 7001 | 77.45 | | 28.44 | | 9.27 | | 11.28 | |
| 07.01.2025 | 08.01.2025 | 7051 | 64.27 | | 20.24 | | 11.17 | | 13.13 | |
| 15.01.2025 | 16.01.2025 | 7258 | 65.11 | | 29.84 | | 10.39 | | 15.30 | |
| 17.01.2025 | 18.01.2025 | 7334 | 60.37 | | 23.29 | | 12.75 | | 14.62 | |
| 18.01.2025 | 19.01.2025 | 7350 | 67.78 | | 18.69 | | 10.36 | | 12.11 | |
| 20.01.2025 | 21.01.2025 | 7393 | 63.27 | | 26.73 | | 14.40 | | 15.67 | |
| Average | | | 65.86 | | 24.56 | | 11.11 | | 13.55 | |

| SL NO | INSTRUMENT DETAILS | | |
|-------|----------------------|--------------------------------|---------------------------------|
| 1 | Instrument Name | Respirable Dust Sampler (RDS) | Fine Particulate Sampler (FPS) |
| 2 | Make & Model | Enviro instruments / EI-142 NL | Enviro instruments / EI-133 |
| 3 | Serial No | R.D.S. / 197-C-21 | PM2.5 / PM10 Sampler / 160-K-20 |
| 4 | Calibration Date | 08.07.2024 | 28.03.2024 |
| 5 | Calibration Due Date | 07.07.2025 | 27.03.2025 |

INFERENCE

As per NAAQMS Standards (2009),
Report Status: - Measured Values for the above parameters are within the limit.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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ANNEXURE-03
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyzer
 Month : JANUARY-2025
 Location : A3-Hanumanahalli Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 03.02.2025
 Report Number : GEMS/BMM/NAAQ/2024-25/4210

RESULTS


| Sl. No. | Date of Sampling | Sample Code | CO (1 Hour) [mg/m ³] | Standard |
|---------|------------------|-------------|----------------------------------|----------|
| 1 | 03.01.2025 | 6885 | 0.16 | 4.0 |
| 2 | 04.01.2025 | 6930 | 0.12 | |
| 3 | 06.01.2025 | 7001 | 0.11 | |
| 4 | 07.01.2025 | 7051 | 0.15 | |
| 5 | 15.01.2025 | 7258 | 0.11 | |
| 6 | 17.01.2025 | 7334 | 0.17 | |
| 7 | 18.01.2025 | 7350 | 0.13 | |
| 8 | 20.01.2025 | 7393 | 0.15 | |


Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)

ND - Not Detected

| SL NO | INSTRUMENT DETAILS | |
|-------|----------------------|--|
| 1 | Instrument Name | CO Gas Detector |
| 2 | Make & Model | Vasthi Instruments Pvt Ltd & VS-70-70-CO |
| 3 | Serial No | 180883821 |
| 4 | Calibration Date | 08.07.2024 |
| 5 | Calibration Due Date | 07.07.2025 |

| | |
|-----------|---|
| INFERENCE | As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit |
|-----------|---|


 Analysed By
 Priyanka B M
 Chemist


 Authorised Signatory
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TC-5323

ANNEXURE-04
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

| | |
|---------------------------------|---|
| Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| Sample collected by | : Global Environment & Mining Services |
| Discipline | : Chemical |
| Group | : Atmospheric Pollution |
| Sample Type | : Ambient Air Quality Monitoring |
| Particulars of Sample Collected | : Respirable Dust Sampler, FPS Sampler |
| Month | : JANUARY-2025 |
| Location | : A4-Galemmanagudi Village |
| Duration of Monitoring | : 24 Hour |
| Report Issue Date | : 03.02.2025 |
| Report Number | : ULR-TC532324000004181F |

RESULTS

| Parameters | | | PM ₁₀ [µg/m ³] | | PM _{2.5} [µg/m ³] | | SO ₂ [µg/m ³] | | NO ₂ [µg/m ³] | |
|------------------|-------------------------|-------------|--|-----|---|-----|---|-----|---|-----|
| Reference Method | | | IS:5182: 2006 (Part-23) (RF-2017) | | USEPA 2001 Gravimetric Method | | IS:5182: 2001 (Part-2) (RF-2017) | | IS:5182: (Part-6) 2006 (RF-2017) | |
| Date of Sampling | Date of Sample Received | Sample Code | Result | STD | Result | STD | Result | STD | Result | STD |
| 01.01.2025 | 02.01.2025 | 6841 | 68.11 | 100 | 27.34 | 60 | 13.50 | 80 | 13.03 | 80 |
| 02.01.2025 | 03.01.2025 | 6865 | 52.37 | | 19.51 | | 10.29 | | 12.73 | |
| 06.01.2025 | 07.01.2025 | 6999 | 50.39 | | 32.89 | | 14.25 | | 16.04 | |
| 07.01.2025 | 08.01.2025 | 7049 | 56.28 | | 18.33 | | 11.13 | | 13.53 | |
| 15.01.2025 | 16.01.2025 | 7256 | 71.30 | | 28.64 | | 15.06 | | 16.96 | |
| 16.01.2025 | 17.01.2025 | 7293 | 62.49 | | 23.75 | | 12.15 | | 14.41 | |
| 20.01.2025 | 21.01.2025 | 7391 | 66.00 | | 20.92 | | 13.37 | | 16.26 | |
| 21.01.2025 | 22.01.2025 | 7419 | 66.42 | | 21.79 | | 14.28 | | 17.82 | |
| Average | | | 62.04 | | 24.15 | | 13.00 | | 15.10 | |

| SL NO | INSTRUMENT DETAILS | | |
|-------|----------------------|--------------------------------|---------------------------------|
| 1 | Instrument Name | Respirable Dust Sampler (RDS) | Fine Particulate Sampler (FPS) |
| 2 | Make & Model | Enviro instruments / EI-142 NL | Enviro instruments / EI-133 |
| 3 | Serial No | R.D.S./198-C-21 | PM2.5 / PM10 Sampler / 158-K-20 |
| 4 | Calibration Date | 08.07.2024 | 28.03.2024 |
| 5 | Calibration Due Date | 07.07.2025 | 27.03.2025 |

INFERENCE As per NAAQMS Standards (2009),
Report Status: - Measured Values for the above parameters are within the limit.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
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Technical Manager



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ANNEXURE-04
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/RO18
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2025
 Location : A4-Galemmanagudi Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 03.02.2025
 Report Number : GEMS/BMM/NAAQ/2024-25/4181

RESULTS


| Sl. No. | Date of Sampling | Sample Code | CO (1 Hour) [mg/m ³] | Standard |
|---------|------------------|-------------|----------------------------------|----------|
| 1 | 01.01.2025 | 6841 | 0.17 | 4.0 |
| 2 | 02.01.2025 | 6865 | 0.14 | |
| 3 | 06.01.2025 | 6999 | 0.18 | |
| 4 | 07.01.2025 | 7049 | 0.11 | |
| 5 | 15.01.2025 | 7256 | 0.13 | |
| 6 | 16.01.2025 | 7293 | 0.17 | |
| 7 | 20.01.2025 | 7391 | 0.15 | |
| 8 | 21.01.2025 | 7419 | 0.13 | |


Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)

ND - Not Detected

| SL NO | INSTRUMENT DETAILS | |
|-------|----------------------|--|
| 1 | Instrument Name | CO Gas Detector |
| 2 | Make & Model | Vasthi Instruments Pvt Ltd & VS-70-70-CO |
| 3 | Serial No | 180883821 |
| 4 | Calibration Date | 08.07.2024 |
| 5 | Calibration Due Date | 07.07.2025 |

| | |
|-----------|---|
| INFERENCE | As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit |
|-----------|---|


 Analysed By
 Priyanka B M
 Chemist


 Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager



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TC-5323

ANNEXURE-05
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : JANUARY-2025
Location : A5-G Nagalapura Village
Duration of Monitoring : 24 Hour
Report Issue Date : 03.02.2025
Report Number : ULR-TC532324000004182F

RESULTS

| Parameters | | | PM10 [µg/m ³] | | PM2.5 [µg/m ³] | | SO2 [µg/m ³] | | NO2 [µg/m ³] | |
|------------------|-------------------------|-------------|---|-----|----------------------------------|-----|--|-----|--|-----|
| Reference Method | | | IS:5182: 2006 (Part-23) (RF-2017) | | USEPA 2001 Gravimetric Method | | IS:5182: 2001 (Part-2) (RF-2017) | | IS:5182: (Part-6) 2006 (RF-2017) | |
| Date of Sampling | Date of Received Sample | Sample Code | Result | STD | Result | STD | Result | STD | Result | STD |
| 01.01.2025 | 02.01.2025 | 6842 | 61.45 | 100 | 16.70 | 60 | 13.00 | 80 | 15.00 | 80 |
| 02.01.2025 | 03.01.2025 | 6866 | 52.76 | | 18.19 | | 11.09 | | 13.30 | |
| 06.01.2025 | 07.01.2025 | 7000 | 55.16 | | 29.51 | | 10.17 | | 13.08 | |
| 07.01.2025 | 08.01.2025 | 7050 | 54.46 | | 21.56 | | 11.18 | | 14.15 | |
| 15.01.2025 | 16.01.2025 | 7257 | 52.16 | | 24.16 | | 13.53 | | 15.05 | |
| 16.01.2025 | 17.01.2025 | 7294 | 45.68 | | 19.77 | | 11.15 | | 12.37 | |
| 20.01.2025 | 21.01.2025 | 7392 | 51.20 | | 18.00 | | 15.11 | | 16.40 | |
| 21.01.2025 | 22.01.2025 | 7420 | 61.18 | | 19.04 | | 14.28 | | 15.82 | |
| Average | | | 54.26 | | 20.87 | | 12.44 | | 14.40 | |

| SL NO | INSTRUMENT DETAILS | | |
|-------|----------------------|--------------------------------|---------------------------------|
| 1 | Instrument Name | Respirable Dust Sampler (RDS) | Fine Particulate Sampler (FPS) |
| 2 | Make & Model | Enviro instruments / EI-142 NL | Enviro instruments / EI-133 |
| 3 | Serial No | R.D.S. / 198-C-21 | PM2.5 / PM10 Sampler / 159-K-20 |
| 4 | Calibration Date | 08.07.2024 | 28.03.2024 |
| 5 | Calibration Due Date | 07.07.2025 | 27.03.2025 |

INFERENCE As per NAAQMS Standards (2009),
Report Status: - Measured Values for the above parameters are within the limit.

Analysed By
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Chemist

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Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without 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 Hosapete jurisdiction only.
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ANNEXURE-05
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2025
 Location : A5- G Nagalapura Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 03.02.2025
 Report Number : GEMS/BMM/NAAQ/2024-25/4182

RESULTS


| Sl. No. | Date of Sampling | Sample Code | CO (1 Hour) [mg/m ³] | Standard |
|---------|------------------|-------------|----------------------------------|----------|
| 1 | 01.01.2025 | 6842 | <0.01 | 4.0 |
| 2 | 02.01.2025 | 6866 | 0.14 | |
| 3 | 06.01.2025 | 7000 | 0.15 | |
| 4 | 07.01.2025 | 7050 | 0.16 | |
| 5 | 15.01.2025 | 7257 | 0.13 | |
| 6 | 16.01.2025 | 7294 | <0.01 | |
| 7 | 20.01.2025 | 7392 | <0.01 | |
| 8 | 21.01.2025 | 7420 | <0.01 | |


Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)

ND - Not Detected

| SL NO | INSTRUMENT DETAILS | |
|-------|----------------------|--|
| 1 | Instrument Name | CO Gas Detector |
| 2 | Make & Model | Vasthi Instruments Pvt Ltd & VS-70-70-CO |
| 3 | Serial No | 180883821 |
| 4 | Calibration Date | 08.07.2024 |
| 5 | Calibration Due Date | 07.07.2025 |

| | |
|-----------|---|
| INFERENCE | As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit |
|-----------|---|


 Analysed By
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 Chemist


 Authorised Signatory
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 Technical Manager



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TC-5323

ANNEXURE-06
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/R018 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : **JANUARY-2025**
Location : **A6-Gunda Tanda Village**
Duration of Monitoring : 24 Hour
Report Issue Date : **03.02.2025**
Report Number : **ULR-TC532324000004183F**

RESULTS

| Parameters | | | PM ₁₀ [µg/m ³] | | PM _{2.5} [µg/m ³] | | SO ₂ [µg/m ³] | | NO ₂ [µg/m ³] | |
|------------------|-------------------------|-------------|--|-----|---|-----|---|-----|---|-----|
| Reference Method | | | IS:5182: 2006 (Part-23) (RF-2017) | | USEPA 2001 Gravimetric Method | | IS:5182: 2001 (Part-2) (RF-2017) | | IS:5182: (Part-6) 2006 (RF-2017) | |
| Date of Sampling | Date of Received Sample | Sample Code | Result | STD | Result | STD | Result | STD | Result | STD |
| 01.01.2025 | 01.01.2025 | 6843 | 50.50 | 100 | 25.61 | 60 | 11.22 | 80 | 12.14 | 80 |
| 02.01.2025 | 03.01.2025 | 6867 | 52.14 | | 27.75 | | 13.20 | | 14.80 | |
| 08.01.2025 | 09.01.2025 | 7084 | 54.16 | | 24.23 | | 15.40 | | 16.24 | |
| 09.01.2025 | 10.01.2025 | 7118 | 48.16 | | 17.42 | | 12.15 | | 13.21 | |
| 15.01.2025 | 16.01.2025 | 7259 | 60.29 | | 19.32 | | 14.68 | | 16.98 | |
| 16.01.2025 | 17.01.2025 | 7295 | 53.90 | | 16.05 | | 12.63 | | 13.60 | |
| 17.01.2025 | 18.01.2025 | 7320 | 47.65 | | 15.62 | | 11.17 | | 12.24 | |
| 18.01.2025 | 19.01.2025 | 7342 | 43.18 | | 23.87 | | 12.15 | | 13.35 | |
| Average | | | 51.25 | | 21.23 | | 12.83 | | 14.07 | |

| SL NO | INSTRUMENT DETAILS | | |
|-------|----------------------|--------------------------------|---------------------------------|
| 1 | Instrument Name | Respirable Dust Sampler (RDS) | Fine Particulate Sampler (FPS) |
| 2 | Make & Model | Enviro instruments / EI-142 NL | Enviro instruments / EI-133 |
| 3 | Serial No | R.D.S./200-C-21 | PM2.5 / PM10 Sampler / 160-K-20 |
| 4 | Calibration Date | 08.07.2024 | 28.03.2024 |
| 5 | Calibration Due Date | 07.07.2025 | 27.03.2025 |

INFERENCE As per NAAQMS Standards (2009).
Report Status: - Measured Values for the above parameters are within the limit.

[Signature]
Analysed By
Priyanka B M
Chemist

[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
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ANNEXURE-06
GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2025
 Location : A6-Gunda Tanda Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 03.02.2025
 Report Number : GEMS/BMM/NAAQ/2024-25/4183

RESULTS


| Sl. No. | Date of Sampling | Sample Code | CO (1 Hour) [mg/m ³] | Standard |
|---------|------------------|-------------|----------------------------------|----------|
| 1 | 01.01.2025 | 6843 | <0.01 | 4.0 |
| 2 | 02.01.2025 | 6867 | <0.01 | |
| 3 | 08.01.2025 | 7084 | <0.01 | |
| 4 | 09.01.2025 | 7118 | <0.01 | |
| 5 | 15.01.2025 | 7259 | <0.01 | |
| 6 | 16.01.2025 | 7295 | <0.01 | |
| 7 | 17.01.2025 | 7320 | <0.01 | |
| 8 | 18.01.2025 | 7342 | <0.01 | |

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)

ND - Not Detected

| SL NO | INSTRUMENT DETAILS | |
|-------|----------------------|--|
| 1 | Instrument Name | CO Gas Detector |
| 2 | Make & Model | Vasthi Instruments Pvt Ltd & VS-70-70-CO |
| 3 | Serial No | 180883821 |
| 4 | Calibration Date | 08.07.2024 |
| 5 | Calibration Due Date | 07.07.2025 |

| | |
|-----------|---|
| INFERENCE | As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit |
|-----------|---|


 Analysed By
 Priyanka B M
 Chemist


 Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager



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ANNEXURE-07
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY MONITORING DATA

| | | | |
|----|---------------------------------|---|---|
| 1 | Name of the Industry | : | BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : | WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : | GLOBAL Environment & Mining Services, Hosapete |
| 4 | Particulars of sample collected | : | HVS Sampler (HVS-01, HVS-02, HVS-03, HVS-04, HVS-05) |
| 5 | Month | : | JANUARY-2025(1 st Fort Night) |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Method adopted | : | IS 5182 (Part 4): 1999 RA 2014 |
| 9 | Report Issued Date | : | 03.02.2025 |
| 10 | Report Number | : | GEMS/BMM/FM/2024-25/4326 |

RESULTS

| Sl. No. | Location / Plant | Sample Code | Date Of Monitoring | Date Of Sample Receipt | SPM ($\mu\text{g}/\text{m}^3$) | Standard |
|---|------------------------------------|-------------|--------------------|------------------------|----------------------------------|----------|
| I. Beneficiation Plant-1 | | | | | | |
| 1. | Main Canteen | 6991 | 06.01.2025 | 07.01.2025 | 1624.88 | 2000 |
| 2. | Near Iron Ore Bottom Hopper | 6989 | 06.01.2025 | 07.01.2025 | 541.46 | 2000 |
| 3. | Iron Ore Screen | 6990 | 06.01.2025 | 07.01.2025 | 1215.42 | 2000 |
| II. Pellet Plant-I | | | | | | |
| 4. | Near Pellet Plant | 6992 | 06.01.2025 | 07.01.2025 | 1602.12 | 2000 |
| 5. | Annual Cooler Pellet Discharge bin | 6832 | 01.01.2025 | 02.01.2025 | 1585.91 | 2000 |
| 6. | Pellet Stock Yard | 7042 | 07.01.2025 | 08.01.2025 | 1641.74 | 2000 |
| III. Sponge Iron Division-1 (kiln 1 & 2) | | | | | | |
| 7. | Control Room SID-1 | 7076 | 08.01.2025 | 09.01.2025 | 1822.95 | 2000 |
| 8. | Near Product bin | 7077 | 08.01.2025 | 09.01.2025 | 1505.37 | 2000 |
| 9. | Coal Feeding Area | 7078 | 08.01.2025 | 09.01.2025 | 1834.14 | 2000 |
| IV. Induction Furnace & Rolling Mill – 1 | | | | | | |
| 10. | IF Office | 7038 | 07.01.2025 | 08.01.2025 | 1805.24 | 2000 |
| 11. | TMT Stock Yard | 7039 | 07.01.2025 | 08.01.2025 | 1490.86 | 2000 |
| 12. | RML Gasifier | 7040 | 07.01.2025 | 08.01.2025 | 582.39 | 2000 |
| V. Power Plant 25 MW-1 | | | | | | |
| 13. | 25 MW ESP | 7079 | 08.01.2025 | 07.01.2025 | 1230.00 | 2000 |
| 14. | 25 MW ACC | 7043 | 07.01.2025 | 08.01.2025 | 1351.04 | 2000 |
| VI. Site Services | | | | | | |
| 15. | PGP- coal handling system | 7041 | 07.01.2025 | 08.01.2025 | 537.45 | 2000 |
| 16. | IF Slag Crusher | 7038 | 07.01.2025 | 08.01.2025 | 855.23 | 2000 |
| 17. | Main Gate | 7145 | 07.01.2025 | 08.01.2025 | 1396.90 | 2000 |
| 18. | Fly ash Dump | 6924 | 04.01.2025 | 05.01.2025 | 597.99 | 2000 |

Note: SPM- Suspended Particulate matter. ($\mu\text{g}/\text{m}^3$). INFERENCE: The Measured Values are within the limits.

| SL NO | INSTRUMENT DETAILS | HVS-01 | HVS-02 | HVS-03 | HVS-04 | HVS-05 |
|-------|----------------------|--------------------------|--------------------------|--------------------------|---------------------|---------------------|
| 1 | Instrument Name | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler |
| 2 | Make & Model | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Greentech/GTI-251 | Greentech/GTI-251 |
| 3 | Serial No | H.V.S./39-F-2024 | H.V.S./40-F-2024 | H.V.S./41-F-2024 | 460-DTF-2024 | 461-DTF-2024 |
| 4 | Calibration Date | 23.09.2024 | 23.09.2024 | 23.09.2024 | 03.06.2024 | 03.06.2024 |
| 5 | Calibration Due Date | 22.09.2025 | 22.09.2025 | 22.09.2025 | 02.06.2025 | 02.06.2025 |

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ANNEXURE-8A

GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : HVS Sampler (HVS-01, HVS-02, HVS-03, HVS-04, HVS-05)
- 5 Month : JANUARY-2025(2nd Fort Night)
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Method adopted : IS 5182 (Part 4): 1999 RA 2014
- 9 Report Issued Date : 03.02.2025
- 10 Report Number : GEMS/BMM/FM/2024-25/4366

RESULTS

| Sl. No. | Location / Plant | Sample Code | Date Of Monitoring | Date Of Sample Receipt | SPM ($\mu\text{g}/\text{m}^3$) | Standard |
|----------------------|------------------------------|-------------|--------------------|------------------------|----------------------------------|----------|
| Blast Furnace | | | | | | |
| 1. | RMHS | 7108 | 09.01.2025 | 10.01.2025 | 395.98 | 2000 |
| 2. | Stock House | 7109 | 09.01.2025 | 10.01.2025 | 534.23 | 2000 |
| 3. | Gas Network Area | 7110 | 09.01.2025 | 10.01.2025 | 1009.72 | 2000 |
| 4. | Blower Area | 7111 | 09.01.2025 | 10.01.2025 | 712.26 | 2000 |
| 5. | Gas Cleaning plant (GCP) | 7112 | 09.01.2025 | 10.01.2025 | 439.11 | 2000 |
| 6. | Stove Area | 7113 | 09.01.2025 | 10.01.2025 | 799.93 | 2000 |
| 7. | Control ROOM (CR) | 7173 | 10.01.2025 | 11.01.2025 | 552.75 | 2000 |
| 8. | Pig Casting Machine (PCM) | 7174 | 10.01.2025 | 11.01.2025 | 503.19 | 2000 |
| 9. | Slag Granulation Plant (SGP) | 7175 | 10.01.2025 | 11.01.2025 | 1143.91 | 2000 |
| 10. | Cost House Area | 7176 | 10.01.2025 | 11.01.2025 | 1646.74 | 2000 |
| SMS Area | | | | | | |
| 1. | Stock House/Vibro Feeders | 7177 | 10.01.2025 | 11.01.2025 | 986.79 | 2000 |
| 2. | Ladle Tapping | 7249 | 15.01.2025 | 16.01.2025 | 997.86 | 2000 |
| 3. | Slag pouring Area | 7178 | 10.01.2025 | 11.01.2025 | 1256.71 | 2000 |
| MBM | | | | | | |
| 1. | Near Re-Heating Furnace | 7250 | 15.01.2025 | 16.01.2025 | 601.74 | 2000 |

Note: SPM -Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), INFERENCE: The Measured Values are within the limits.

| SL NO | INSTRUMENT DETAILS | HVS-01 | HVS-02 | HVS-03 | HVS-04 | HVS-05 |
|-------|----------------------|--------------------------|--------------------------|--------------------------|---------------------|---------------------|
| 1 | Instrument Name | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler |
| 2 | Make & Model | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Greentech/GTI-251 | Greentech/GTI-251 |
| 3 | Serial No | H.V.S./39-F-2024 | H.V.S./40-F-2024 | H.V.S./41-F-2024 | 460-DTF-2024 | 461-DTF-2024 |
| 4 | Calibration Date | 23.09.2024 | 23.09.2024 | 23.09.2024 | 03.06.2024 | 03.06.2024 |
| 5 | Calibration Due Date | 22.09.2025 | 22.09.2025 | 22.09.2025 | 02.06.2025 | 02.06.2025 |

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ANNEXURE-08

GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY MONITORING DATA

| | | | |
|----|---------------------------------|---|---|
| 1 | Name of the Industry | : | BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : | WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : | GLOBAL Environment & Mining Services, Hosapete |
| 4 | Particulars of sample collected | : | HVS Sampler (HVS-01, HVS-02, HVS-03, HVS-04, HVS-05) |
| 5 | Month | : | JANUARY-2025(2 nd Fort Night) |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Method adopted | : | IS 5182 (Part 4)1999 RA 2014 |
| 9 | Report Issued Date | : | 03.02.2025 |
| 10 | Report Number | : | GEMS/BMM/FM/2024-25/4537 |

RESULTS

| Sl. NO. | Location / Plant | Sample Code | Date Of Monitoring | Date Of Sample Receipt | SPM ($\mu\text{g}/\text{m}^3$) | Standard |
|---|------------------------------------|-------------|--------------------|------------------------|----------------------------------|----------|
| I. Beneficiation Plant-1 | | | | | | |
| 1. | Main Canteen | 7443 | 22.01.2025 | 23.01.2025 | 1822.53 | 2000 |
| 2. | Near Iron Ore Bottom Hopper | 7441 | 22.01.2025 | 23.01.2025 | 929.97 | 2000 |
| 3. | Iron Ore Screen | 7442 | 22.01.2025 | 23.01.2025 | 784.51 | 2000 |
| II. Pellet Plant-I | | | | | | |
| 4. | Near Pellet Plant | 7444 | 22.01.2025 | 23.01.2025 | 1337.69 | 2000 |
| 5. | Annual Cooler Pellet Discharge bin | 7445 | 22.01.2025 | 23.01.2025 | 1872.73 | 2000 |
| 6. | Pellet Stock Yard | 7469 | 23.01.2025 | 24.01.2025 | 1323.22 | 2000 |
| III. Sponge Iron Division-1 (kiln 1 & 2) | | | | | | |
| 7. | Control Room SID-I | 7501 | 24.01.2025 | 25.01.2025 | 1727.39 | 2000 |
| 8. | Near Product bin | 7503 | 24.01.2025 | 25.01.2025 | 1333.02 | 2000 |
| 9. | Coal Feeding Area | 7503 | 24.01.2025 | 25.01.2025 | 796.04 | 2000 |
| IV. Induction Furnace & Rolling Mill | | | | | | |
| 10. | IF Office | 7470 | 23.01.2025 | 24.01.2025 | 1593.87 | 2000 |
| 11. | TMT Stock Yard | 7471 | 23.01.2025 | 24.01.2025 | 1721.03 | 2000 |
| 12. | RML Gasifier | 7472 | 23.01.2025 | 24.01.2025 | 1569.49 | 2000 |
| V. Power Plant 25 MW-1 | | | | | | |
| 13. | 25 MW ESP | 7504 | 24.01.2025 | 25.01.2025 | 1311.83 | 2000 |
| 14. | 25 MW ACC | 7527 | 25.01.2025 | 26.01.2025 | 1449.84 | 2000 |
| VI. Site Services | | | | | | |
| 15. | PGP- Coal handling system | 7519 | 24.01.2025 | 25.01.2025 | 936.24 | 2000 |
| 16. | IF Slag Crusher | 7505 | 24.01.2025 | 25.01.2025 | 1809.44 | 2000 |
| 17. | Main Gate | 7528 | 25.01.2025 | 26.01.2025 | 1334.35 | 2000 |
| 18. | Fly ash Dump | 7412 | 21.01.2025 | 22.01.2025 | 573.11 | 2000 |

Note: SPM - Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), INFERENCE: The Measured Values are within the limits.

| Sl. NO | INSTRUMENT DETAILS | HVS-01 | HVS-02 | HVS-03 | HVS-04 | HVS-05 |
|--------|----------------------|--------------------------|--------------------------|--------------------------|---------------------|---------------------|
| 1 | Instrument Name | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler |
| 2 | Make & Model | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Greentech/GTI-251 | Greentech/GTI-251 |
| 3 | Serial No | H.V.S./39-F-2024 | H.V.S./40-F-2024 | H.V.S./41-F-2024 | 460-DTF-2024 | 461-DTF-2024 |
| 4 | Calibration Date | 23.09.2024 | 23.09.2024 | 23.09.2024 | 03.06.2024 | 03.06.2024 |
| 5 | Calibration Due Date | 22.09.2025 | 22.09.2025 | 22.09.2025 | 02.06.2025 | 02.06.2025 |

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ANNEXURE-09
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : HVS Sampler (HVS-01, HVS-02, HVS-03, HVS-04, HVS-05)
- 5 Month : JANUARY-2025(1st Fort Night)
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Method adopted : IS 5182 (Part 4): 1999 RA 2014
- 9 Report Issued Date : 03.02.2025
- 10 Report Number : GEMS/BMM/FM/2024-25/4193

RESULTS

| Sl. No. | Location / Plant | Sample Code | Date Of Monitoring | Date Of Sample Receipt | SPM ($\mu\text{g}/\text{m}^3$) | Standard |
|--|--|-------------|--------------------|------------------------|----------------------------------|----------|
| I. Beneficiation Plant-II | | | | | | |
| 1. | Ball Mill Area (Zero Meter) | 6829 | 01.01.2025 | 02.01.2025 | 708.33 | 2000 |
| 2. | Near Cone Crusher | 6831 | 01.01.2025 | 02.01.2025 | 528.45 | 2000 |
| 3. | Concentrate Thickner | 6830 | 01.01.2025 | 02.01.2025 | 408.02 | 2000 |
| II. Pellet Plant | | | | | | |
| 4. | PR-6 | 6833 | 01.01.2025 | 02.01.2025 | 591.02 | 2000 |
| 5. | Annual Cooler Pellet Discharge bin | 6832 | 01.01.2025 | 02.01.2025 | 839.92 | 2000 |
| 6. | Additive Grinding Building | 6834 | 01.01.2025 | 02.01.2025 | 1323.50 | 2000 |
| III. Sponge Iron Division -2 (Kiln 3 & 4) | | | | | | |
| 7. | Control room | 6854 | 02.01.2025 | 03.01.2025 | 1473.32 | 2000 |
| 8. | Near Weigh bridge (dispatch) | 6853 | 02.01.2025 | 03.01.2025 | 640.39 | 2000 |
| 9. | Pellet Storage bin | 6854 | 02.01.2025 | 03.01.2025 | 1189.04 | 2000 |
| 10. | Transfer House area | 6855 | 02.01.2025 | 03.01.2025 | 1620.16 | 2000 |
| 11. | Production Separation Bin-PSB | 6856 | 02.01.2025 | 03.01.2025 | 1425.42 | 2000 |
| IV. Sponge Iron Division -3 (Kiln 5 & 6) | | | | | | |
| 12. | Near Control room | 6858 | 02.01.2025 | 03.01.2025 | 1868.68 | 2000 |
| 13. | Near Coal Crusher | 6876 | 03.01.2025 | 04.01.2025 | 1523.29 | 2000 |
| 14. | Near Product bin | 6875 | 03.01.2025 | 04.01.2025 | 1390.49 | 2000 |
| 15. | Coal Dryer | 6877 | 03.01.2025 | 04.01.2025 | 1681.23 | 2000 |
| V. Wagon Tipper/RMHS | | | | | | |
| 16. | Near Tipping point | 6878 | 03.01.2025 | 04.01.2025 | 509.79 | 2000 |
| 17. | Monsoon Shed (CPU) | 6879 | 03.01.2025 | 04.01.2025 | 307.61 | 2000 |
| 18. | MCC Room (2 nd Gate) | 6880 | 03.01.2025 | 04.01.2025 | 1704.69 | 2000 |
| VI. Power Plant-70 MW | | | | | | |
| 19. | 70MW-DM Plant (Near R.O. Plant) | 6920 | 04.01.2025 | 05.01.2025 | 1139.45 | 2000 |
| 20. | 2 nd gate weigh bridge Near Coal Screen | 6988 | 06.01.2025 | 07.01.2025 | 960.53 | 2000 |
| 21. | CFBC boiler | 6925 | 04.01.2025 | 05.01.2025 | 709.78 | 2000 |
| VII. 2X70MW Power Plant | | | | | | |
| 22. | Near Boiler | 6921 | 04.01.2025 | 05.01.2025 | 1057.49 | 2000 |
| 23. | Near Coal storage Shed | 6922 | 04.01.2025 | 05.01.2025 | 1637.85 | 2000 |
| 24. | Dolochar Processing Area | 6923 | 04.01.2025 | 05.01.2025 | 454.12 | 2000 |

Note: SPM -Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), INFERENCE: The Measured Values are within the limits.

| SL.NO | INSTRUMENT DETAILS | HVS-01 | HVS-02 | HVS-03 | HVS-04 | HVS-05 |
|-------|----------------------|--------------------------|--------------------------|--------------------------|---------------------|---------------------|
| 1 | Instrument Name | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler |
| 2 | Make & Model | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Greentech/GTI-251 | Greentech/GTI-251 |
| 3 | Serial No | H.V.S./39-F-2024 | H.V.S./40-F-2024 | H.V.S./41-F-2024 | 460-DTF-2024 | 461-DTF-2024 |
| 4 | Calibration Date | 23.09.2024 | 23.09.2024 | 23.09.2024 | 03.06.2024 | 03.06.2024 |
| 5 | Calibration Due Date | 22.09.2025 | 22.09.2025 | 22.09.2025 | 02.06.2025 | 02.06.2025 |

[Signature]
Analysed By
Priyanka B M
Chemist

[Signature]
Authorised Signatory
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ANNEXURE-10
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

| | | | |
|----|---------------------------------|---|---|
| 1 | Name of the Industry | : | BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : | WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : | GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : | HVS Sampler (HVS-01, HVS-02, HVS-03, HVS-04, HVS-05) |
| 5 | Month | : | JANUARY-2025(2 ND Fort Night) |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Method adopted | : | IS 5182 (Part 4): 1999 RA 2014 |
| 9 | Report Issued Date | : | 03.02.2025 |
| 10 | Report Number | : | GEMS/BMM/FM/2024-25/4467 |

RESULTS

| Sl. No. | Location / Plant | Sample Code | Date Of Monitoring | Date Of Sample Receipt | SPM ($\mu\text{g}/\text{m}^3$) | Standard |
|--|--|-------------|--------------------|------------------------|----------------------------------|----------|
| I. Beneficiation Plant-II | | | | | | |
| 1. | Ball Mill Area (Zero Meter) | 7281 | 16.01.2025 | 17.01.2025 | 1469.24 | 2000 |
| 2. | Near Cone Crusher | 7283 | 16.01.2025 | 17.01.2025 | 621.14 | 2000 |
| 3. | Concentrate Thickner | 7282 | 16.01.2025 | 17.01.2025 | 727.93 | 2000 |
| II. Pellet Plant-I | | | | | | |
| 4. | PR-6 | 7285 | 16.01.2025 | 17.01.2025 | 1133.90 | 2000 |
| 5. | Annual Cooler Pellet Discharge bin | 7286 | 16.01.2025 | 17.01.2025 | 1559.89 | 2000 |
| 6. | Additive Grinding Building | 7325 | 17.01.2025 | 18.01.2025 | 1715.10 | 2000 |
| III. Sponge Iron Division -2 (Kiln 3&4) | | | | | | |
| 7. | Control room | 7320 | 17.01.2025 | 18.01.2025 | 1725.73 | 2000 |
| 8. | Near Weigh bridge (dispatch) | 7326 | 17.01.2025 | 18.01.2025 | 1549.74 | 2000 |
| 9. | Pellet Storage bin | 7329 | 17.01.2025 | 18.01.2025 | 1153.07 | 2000 |
| 10. | Transfer House area | 7327 | 17.01.2025 | 18.01.2025 | 1255.09 | 2000 |
| 11. | Production Separation Bin-PSB | 7328 | 17.01.2025 | 18.01.2025 | 1619.93 | 2000 |
| IV. Sponge Iron Division -2 (Kiln 5&6) | | | | | | |
| 12. | Near Control room | 7567 | 27.01.2025 | 28.01.2025 | 1449.28 | 2000 |
| 13. | Near Coal Crusher | 7342 | 18.01.2025 | 19.01.2025 | 1531.90 | 2000 |
| 14. | Near Product bin | 7343 | 18.01.2025 | 19.01.2025 | 1389.17 | 2000 |
| 15. | Coal Drier | 7380 | 20.01.2025 | 21.01.2025 | 1479.74 | 2000 |
| V. Wagon Tipper/RMHS | | | | | | |
| 16. | Near Tipping point | 7345 | 18.01.2025 | 19.01.2025 | 1030.65 | 2000 |
| 17. | Monsoon Shed (CPU) | 7381 | 20.01.2025 | 21.01.2025 | 1604.19 | 2000 |
| 18. | MCC Room (2 nd Gate) | 7382 | 20.01.2025 | 21.01.2025 | 1806.72 | 2000 |
| VI. Power Plant-70 MW | | | | | | |
| 19. | 70MW-DM Plant (Near R.O. Plant) | 7383 | 20.01.2025 | 21.01.2025 | 1330.21 | 2000 |
| 20. | 2 nd gate weigh bridge Near Coal Screen | 7408 | 21.01.2025 | 22.01.2025 | 1133.34 | 2000 |
| 21. | CFBC boiler | 7384 | 20.01.2025 | 21.01.2025 | 742.36 | 2000 |
| VII. 2X70MW Power Plant | | | | | | |
| 22. | Near Boiler | 7409 | 21.01.2025 | 22.01.2025 | 1170.19 | 2000 |
| 23. | Near Coal storage Shed | 7410 | 21.01.2025 | 22.01.2025 | 1319.24 | 2000 |
| 24. | CPP Dolochar Process Area | 7411 | 21.01.2025 | 22.01.2025 | 1546.16 | 2000 |

Note: SPM -Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), INFERENCE: The Measured Values are within the limits.

| SL NO | INSTRUMENT DETAILS | HVS-01 | HVS-02 | HVS-03 | HVS-04 | HVS-05 |
|-------|----------------------|--------------------------|--------------------------|--------------------------|---------------------|---------------------|
| 1 | Instrument Name | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler |
| 2 | Make & Model | Enviro Instrumets/El-043 | Enviro Instrumets/El-043 | Enviro Instrumets/El-043 | Greentech/GTI-251 | Greentech/GTI-251 |
| 3 | Serial No | H.V.S./39-F-2024 | H.V.S./40-F-2024 | H.V.S./41-F-2024 | 460-DTF-2024 | 461-DTF-2024 |
| 4 | Calibration Date | 23.09.2024 | 23.09.2024 | 23.09.2024 | 03.06.2024 | 03.06.2024 |
| 5 | Calibration Due Date | 22.09.2025 | 22.09.2025 | 22.09.2025 | 02.06.2025 | 02.06.2025 |

Analysed By
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ANNEXURE-10A
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : HVS Sampler (HVS-01, HVS-02, HVS-03, HVS-04, HVS-05)
- 5 Month : **JANUARY-2025(2nd Fort Night)**
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Method adopted : IS 5182 (Part 4): 1999 RA 2014
- 9 Report Issued Date : **03.02.2025**
- 10 Report Number : **GEMS/BMM/FM/2024-25/4586**

RESULTS

| Sl. No. | Location / Plant | Sample Code | Date Of Monitoring | Date Of Sample Receipt | SPM ($\mu\text{g}/\text{m}^3$) | Standard |
|----------------------|------------------------------|-------------|--------------------|------------------------|----------------------------------|----------|
| Blast Furnace | | | | | | |
| 1. | RMHS | 7529 | 25.01.2025 | 26.01.2025 | 531.84 | 2000 |
| 2. | Stock House | 7530 | 25.01.2025 | 26.01.2025 | 1490.49 | 2000 |
| 3. | Gas Network Area | 7531 | 25.01.2025 | 26.01.2025 | 704.17 | 2000 |
| 4. | Blower Area | 7564 | 27.01.2025 | 28.01.2025 | 370.52 | 2000 |
| 5. | Gas Cleaning plant (GCP) | 7565 | 27.01.2025 | 28.01.2025 | 694.19 | 2000 |
| 6. | Stove Area | 7566 | 27.01.2025 | 28.01.2025 | 854.57 | 2000 |
| 7. | Control ROOM (CR) | 7567 | 27.01.2025 | 28.01.2025 | 1433.44 | 2000 |
| 8. | Pig Costing Machine (PCM) | 7601 | 28.01.2025 | 29.01.2025 | 387.73 | 2000 |
| 9. | Slag Granulation Plant (SGP) | 7602 | 28.01.2025 | 29.01.2025 | 610.55 | 2000 |
| 10. | Cost House Area | 7568 | 27.01.2025 | 28.01.2025 | 862.48 | 2000 |
| SMS Area | | | | | | |
| 1. | Stock House/Vibro Feeders | 7603 | 28.01.2025 | 29.01.2025 | 1289.86 | 2000 |
| 2. | Laddle Tapping | 7604 | 28.01.2025 | 29.01.2025 | 1603.67 | 2000 |
| 3. | Slag pouring Area | 7605 | 28.01.2025 | 29.01.2025 | 1778.47 | 2000 |
| MBM | | | | | | |
| 1. | Near Re-Heating Furnace | 7620 | 29.01.2025 | 30.01.2025 | 521.06 | 2000 |

Note: SPM -Suspended Particulate matter ($\mu\text{g}/\text{m}^3$), **INFERENCE:** The Measured Values are within the limits.

| SL NO | INSTRUMENT DETAILS | HVS-01 | HVS-02 | HVS-03 | HVS-04 | HVS-05 |
|-------|----------------------|--------------------------|--------------------------|--------------------------|---------------------|---------------------|
| 1 | Instrument Name | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler | High Volume Sampler |
| 2 | Make & Model | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Enviro Instrumets/EI-043 | Greentech/GTI-251 | Greentech/GTI-251 |
| 3 | Serial No | H.V.S./39-F-2024 | H.V.S./40-F-2024 | H.V.S./41-F-2024 | 460-DTF-2024 | 461-DTF-2024 |
| 4 | Calibration Date | 23.09.2024 | 23.09.2024 | 23.09.2024 | 03.06.2024 | 03.06.2024 |
| 5 | Calibration Due Date | 22.09.2025 | 22.09.2025 | 22.09.2025 | 02.06.2025 | 02.06.2025 |

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TC-5323

ANNEXURE-12
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|------------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services, Hosapete |
| 4 | Particulars of sample collected | : Vayubodhak Stack sampler/ VBSS-2 Sl. No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : Pellet Plant-1 ESP |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 02.01.2025&17.01.2025 |
| 12 | Date of Sample Analysis | : 03.01.2025&18.01.2025 |
| 13 | Date of Sample Analysis completion | : 04.01.2025&18.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004173F |

Stack Details

| | | |
|---|----------------------|--------------------|
| 1 | Fuel Used | Coal & furnace oil |
| 2 | Stack Height (mtr) | 100.0 |
| 3 | Stack Diameter (mtr) | 4.4 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Results | | Permissible Limit |
|---------|-----------------------------------|-------------------------------------|---------------------|------------|------------|-------------------|
| | | | | 02.01.2025 | 17.01.2025 | |
| | Date of Monitoring Sample Code | | | 6828 | 7330 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 26 | 27 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 56 | 62 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 6.12 | 6.06 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) | m ³ /hr | 335287 | 331602 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) | Nm ³ /hr | 303575 | 294861 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 31.0 | 32.51 | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): (RA 2014) | mg/Nm ³ | 182.0 | 191.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 80.0 | 82.0 | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.010 | 0.011 | NS |

Note: NS- Not Specified, RA: Reaffirmed, INFERENCE: The Measured Values are within the limits.

Analysed By
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Chemist

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Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without 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 Hosapete jurisdiction only.
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TC-5323

ANNEXURE-13
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- Discipline : Chemical
- Group : Atmospheric Pollution
- Sample Type : Stack Monitoring
- Sampling Location : 2X100 TPD Sponge iron plant Kiln 1 & 2
- Month of Sampling : JANUARY-2025
- Date of Sample Received : 04.01.2025&27.01.2025
- Date of Sample Analysis : 05.01.2025&28.01.2025
- Date of Sample Analysis completion : 06.01.2025&29.01.2025
- Report Issued Date : 03.02.2025
- Report Number : ULR-TC532324000004249F

Stack Details

- Fuel Used : Coal
- Stack Height (mtr) : 60.0
- Stack Diameter (mtr) : 2.00

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|-----------------------------------|-------------------------------------|---------------------|----------------------------|----------------------------|-------------------|
| | | | | 1 st Fort Night | 2 nd Fort Night | |
| | Date of Monitoring Sample Code | | | 04.01.2025 | 27.01.2025 | |
| | | | | 6929 | 7569 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 27 | 29 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 169 | 173 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 6.66 | 6.81 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) | m ³ /hr | 75366 | 77071 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) | Nm ³ /hr | 50570 | 51098 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 26.53 | 22.35 | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): (RA 2014) | mg/Nm ³ | 169.0 | 180.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 32.0 | 43.0 | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.102 | 0.090 | 1 |

Note: NS- Not Specified. RA: Reaffirmed, INFERENCE: The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-14
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025(1st Fort Night)
- 10 Date of Sample Received : 15.01.2025
- 11 Date of Sample Analysis : 16.01.2025
- 12 Date of Sample Analysis completion : 17.01.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004458F

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/N m ³ |
|-------------------------|---------------------|--------------------|-------------|----------------|-------|-------|---------|------------|--------------|-----------------------|-------------------------------|
| Induction Furnace 1 & 2 | | | | | | | | | | | |
| 1 | Induction Furnace 1 | 15.01.2025 | 7251 | Electric Power | 29 | 41 | 6.25 | 30 | 1.2 | 8.46 | 150 |
| 2 | Induction Furnace 2 | 15.01.2025 | 7252 | | 29 | 43 | 6.34 | 30 | 1.3 | 11.26 | 150 |

| Sl. No | Induction Furnace 1 & 2 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|-------------------------|---|--|-----------|
| 1 | Induction Furnace 1 | 25453 | 24186 | 50 |
| 2 | Induction Furnace 2 | 30290 | 28314 | 50 |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

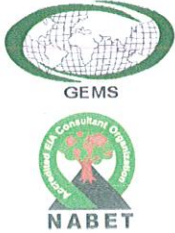
Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-15
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|------------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services, Hosapete |
| 4 | Particulars of sample collected | : Vayubodhak Stack sampler/ VBSS-2 Sl. No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : Rolling mill reheating furnace |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 08.01.2025&21.01.2025 |
| 12 | Date of Sample Analysis | : 09.01.2025&22.01.2025 |
| 13 | Date of Sample Analysis completion | : 10.01.2025&23.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004329F |

Stack Details

| | | |
|---|----------------------|------|
| 1 | Fuel Used | Coal |
| 2 | Stack Height (mtr) | 30.0 |
| 3 | Stack Diameter (mtr) | 0.8 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------------------|----------------------------|-------------------|
| | | | | 1 st Fort Night | 2 nd Fort Night | |
| | | | | 07.01.2025 | 21.01.2025 | |
| | Date of Monitoring | | | 7046 | 7416 | |
| | Sample Code | | | | | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 26 | 26 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 192 | 187 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 7.69 | 7.99 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) | m ³ /hr | 31301 | 32516 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) | Nm ³ /hr | 20543.1 | 20790.9 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 14.18 | 15.71 | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): (RA 2014) | mg/Nm ³ | 21.0 | 25.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 136.0 | 182.0 | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.090 | 0.086 | 1 |

Note: NS- Not Specified. RA: Reaffirmed, INFERENCE: The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-16
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | | |
|----|------------------------------------|---|--|
| 1 | Name of the Industry | : | BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District |
| 2 | Customer Reference | : | WO/ADMIN/FY24/R018 - 450000125 |
| 3 | Sample collected by | : | GLOBAL Environment & Mining Services, Hosapete |
| 4 | Particulars of sample collected | : | Vayubodhak Stack sampler/ VBSS-2 Sl. No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : | Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : | Chemical |
| 7 | Group | : | Atmospheric Pollution |
| 8 | Sample Type | : | Stack Monitoring |
| 9 | Sampling Location | : | AFBC Boiler ESP (25 MW Power Plant) |
| 10 | Month of Sampling | : | JANUARY-2025 |
| 11 | Date of Sample Received | : | - |
| 12 | Date of Sample Analysis | : | - |
| 13 | Date of Sample Analysis completion | : | - |
| 14 | Report Issued Date | : | 03.02.2025 |
| 15 | Report Number | : | - |

Stack Details

| | | |
|---|----------------------|------|
| 1 | Fuel Used | Coal |
| 2 | Stack Height (mtr) | 65.0 |
| 3 | Stack Diameter (mtr) | 2.5 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------------------|----------------------------|-------------------|
| | | | | 1 st Fort Night | 2 nd Fort Night | |
| | | | | - | - | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | Shutdown | Shutdown | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | | | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | | | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) | m ³ /hr | | | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) | Nm ³ /hr | | | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | | | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): (RA 2014) | mg/Nm ³ | | | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | | | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | | | NS |

Note: NS- Not Specified. RA: Reaffirmed,


Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-17
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025(1st Fort Night)
- 10 Date of Sample Received : 15.01.2025
- 11 Date of Sample Analysis : 16.01.2025
- 12 Date of Sample Analysis completion : 17.01.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004460F

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|----------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Beneficiation Plant - I | | | | | | | | | | | |
| 1 | Iron Ore dump hopper | 15.01.2025 | 7253 | - | 28 | 34 | 5.13 | 30 | 0.4 | 16.38 | 50 |
| 2 | Iron Ore Screen bin | 15.01.2025 | 7254 | - | 27 | 32 | 5.48 | 30 | 0.4 | 14.95 | 50 |

| Sl. No | Beneficiation Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|----------------------|---|--|-----------|
| 1 | Iron Ore dump hopper | 2323 | 2259 | - |
| 2 | Iron Ore Screen bin | 2480 | 2389 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-18
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025(1st Fort Night)
- 10 Date of Sample Received : 10.01.2025
- 11 Date of Sample Analysis : 15.01.2025
- 12 Date of Sample Analysis completion : 15.01.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004428F

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|----------------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| RMHS | | | | | | | | | | | |
| 3 | Screen, Coal Crusher (CPU) | 10.01.2025 | 7180 | - | 25 | 34 | 5.43 | 30 | 1.5 | 23.26 | 50 |
| 4 | Main Crusher | 10.01.2025 | 7182 | - | 25 | 32 | 5.10 | 25 | 0.5 | 11.84 | 50 |

| Sl. No | Beneficiation Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|----------------------------|---|--|-----------|
| 3 | Screen, Coal Crusher (CPU) | 34549 | 32957 | - |
| 4 | Main Crusher | 3606 | 3483 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-19
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025(1st Fort Night)
- 10 Date of Sample Received : 02.01.2025&03.01.2025
- 11 Date of Sample Analysis : 03.01.2025&04.01.2025
- 12 Date of Sample Analysis completion : 04.01.2025&05.01.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004194F

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|---|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Pellet Plant -I | | | | | | | | | | | |
| 5 | AGB Main Bag Filter | 02.01.2025 | 6859 | - | 27 | 33 | 4.92 | 6.5 | 0.50 | 24.54 | 50 |
| 6 | Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter | 02.01.2025 | 6860 | - | 28 | 35 | 5.54 | 3.0 | 0.30 | 27.61 | 50 |
| 7 | Bentonite Powder bin top bag filter | 02.01.2025 | 6861 | - | 27 | 33 | 5.30 | 3.0 | 0.30 | 20.62 | 50 |
| 8 | H-4 Conveyor discharge bag filter | Shutdown | - | - | - | - | - | 7.0 | 0.50 | - | 50 |
| 9 | P-1 Bag Filter | 03.01.2025 | 6884 | - | 28 | 34 | 5.56 | 7.0 | 0.50 | 28.99 | 50 |

| Sl. No | Pellet Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|---|---|--|-----------|
| 5 | AGB Main Bag Filter | 3478 | 3372 | - |
| 6 | Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter | 1410 | 1360 | - |
| 7 | Bentonite Powder bin top bag filter | 1348 | 1304 | - |
| 8 | H-4 Conveyor discharge bag filter | - | - | - |
| 9 | P-1 Bag Filter | 3932 | 3764 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-20
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025(1st Fort Night)
- 10 Date of Sample Received : 10.01.2025&10.01.2025
- 11 Date of Sample Analysis : 15.01.2025&15.01.2025
- 12 Date of Sample Analysis completion : 15.01.2025&15.01.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004372F

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|-------------------------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| 2 X 100 TPD Sponge Iron Kiln 1 & 2 | | | | | | | | | | | |
| 10 | Cooler-1 Discharge & Blending Chute | 09.01.2025 | 7115 | --- | 26 | 34 | 5.50 | 30 | 1.20 | 27.86 | 50 |
| 11 | Cooler-2 Discharge | 09.01.2025 | 7116 | --- | 26 | 35 | 5.04 | 30 | 1.20 | 28.81 | 50 |
| 12 | Intermediate Bin & Blending | 09.01.2025 | 7117 | --- | 27 | 34 | 5.74 | 30 | 1.20 | 25.77 | 50 |
| 13 | Product House | 10.01.2025 | 7180 | --- | 28 | 36 | 5.83 | 30 | 1.20 | 30.94 | 50 |

| Sl. No | 2 X 100 TPD Sponge Iron Kiln 1 & 2 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|-------------------------------------|---|--|-----------|
| 10 | Cooler-1 Discharge & Blending Chute | 22379 | 21703 | - |
| 11 | Cooler-2 Discharge | 20509 | 19786 | - |
| 12 | Intermediate Bin & Blending | 23364 | 22446 | - |
| 13 | Product House | 23720 | 22911 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-21
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- | | | |
|----|------------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services, Hosapete |
| 4 | Particulars of sample collected | : Vayubodhak Stack sampler/ VBSS-2 Sl. No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2025(2nd Fort Night) |
| 10 | Date of Sample Received | : 25.01.2025 |
| 11 | Date of Sample Analysis | : 26.01.2025 |
| 12 | Date of Sample Analysis completion | : 27.01.2025 |
| 13 | Report Issued Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC532324000004589F |

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|-------------------------------------|----------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Induction Furnance 1 & 2 | | | | | | | | | | | |
| 1 | Induction Furnance 1 | 25.01.2025 | 7532 | Electric | 27 | 41 | 6.06 | 30 | 1.2 | 7.35 | 50 |
| 2 | Induction Furnance 2 | 25.01.2025 | 7533 | Power | 27 | 43 | 6.24 | 30 | 1.3 | 10.79 | 50 |

| Sl. No | Induction Furnance 1 & 2 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|--------------------------|---|--|-----------|
| 1 | Induction Furnance 1 | 24664 | 23599 | - |
| 2 | Induction Furnance 2 | 29836 | 28279 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

Authorised Signatory
K. Ramakrishna Reddy
 Technical Manager



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TC-5323

ANNEXURE-22
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025(2nd Fort Night)
- 10 Date of Sample Received : 30.01.2025
- 11 Date of Sample Analysis : 31.01.2025
- 12 Date of Sample Analysis completion : 01.02.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004644F

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|----------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Beneficiation Plant | | | | | | | | | | | |
| 1 | Iron Ore dump hopper | 30.01.2025 | 7636 | --- | 28 | 33 | 5.39 | 30 | 0.40 | 17.59 | 50 |
| 2 | Iron Ore Screen bin | 30.01.2025 | 7657 | --- | 28 | 34 | 5.70 | 30 | 0.40 | 16.74 | 50 |

| Sl. No | Beneficiation Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|----------------------|---|--|-----------|
| 1 | Iron Ore dump hopper | 2439 | 2360 | - |
| 2 | Iron Ore Screen bin | 2578 | 2484 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-23
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025(2nd Fort Night)
- 10 Date of Sample Received : 30.01.2025
- 11 Date of Sample Analysis : 31.01.2025
- 12 Date of Sample Analysis completion : 01.02.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004646F

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|---------------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| RMHS | | | | | | | | | | | |
| 3 | Screen, Coal Crusher(CPU) | 30.01.2025 | 7638 | - | 27 | 37 | 5.14 | 30 | 1.50 | 25.14 | 50 |
| 4 | Main Crusher | 30.01.2025 | 7639 | - | 28 | 33 | 5.00 | 25 | 0.50 | 14.60 | 50 |

| Sl. No | Beneficiation Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|----------------------------|---|--|-----------|
| 3 | Screen, Coal Crusher (CPU) | 32709 | 31512 | - |
| 4 | Main Crusher | 3535 | 3436 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

P. B. M.
Analysed By
Priyanka B M
Chemist

K. Ramakrishna Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-24
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|------------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services, Hosapete |
| 4 | Particulars of sample collected | : Vayubodhak Stack sampler/ VBSS-2 Sl. No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2025(2nd Fort Night) |
| 10 | Date of Sample Received | : 18.01.2025&18.01.2025 |
| 11 | Date of Sample Analysis | : 20.01.2025&20.01.2025 |
| 12 | Date of Sample Analysis completion | : 20.01.2025&20.01.2025 |
| 13 | Report Issued Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC532324000004484F |

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/N m ³ | KSPCB Std mg/Nm ³ |
|--|---|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|------------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Pellet Plant-I | | | | | | | | | | | |
| 5 | AGB Main Bag Filter | 17.01.2025 | 7331 | --- | 29 | 33 | 5.12 | 6.5 | 0.50 | 19.93 | 50 |
| 6 | Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter | 17.01.2025 | 7332 | --- | 30 | 34 | 5.65 | 3.0 | 0.30 | 25.37 | 50 |
| 7 | Bentonite Powder bin top bag filter | 17.01.2025 | 7333 | --- | 31 | 35 | 5.79 | 3.0 | 0.30 | 19.03 | 50 |
| 8 | H-4 Conveyor discharge bag filter | - | - | --- | - | - | - | 7.0 | 0.50 | - | 50 |
| 9 | P-1 Bag Filter | 18.01.2025 | 7349 | --- | 29 | 37 | 5.37 | 7.0 | 0.50 | 32.35 | 50 |

| Sl. No | Pellet Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|---|---|--|-----------|
| 5 | AGB Main Bag Filter | 3617 | 3518 | - |
| 6 | Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter | 1439 | 1393 | - |
| 7 | Bentonite Powder bin top bag filter | 1473 | 1420 | - |
| 8 | H-4 Conveyor discharge bag filter | - | - | - |
| 9 | P-1 Bag Filter | 3793 | 3640 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-25
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- 4 Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **JANUARY-2025(2nd Fort Night)**
- 10 Date of Sample Received : 27.01.2025&28.01.2025
- 11 Date of Sample Analysis : 28.01.2025&29.01.2025
- 12 Date of Sample Analysis completion : 29.01.2025&30.01.2025
- 13 Report Issued Date : **03.02.2025**
- 14 Report Number : **ULR-TC532324000004609F**

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/N m ³ | KSPCB Std mg/Nm ³ |
|---|-------------------------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|------------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| 2 X 100 TPD Sponge Iron Kiln 1 & 2 | | | | | | | | | | | |
| 10 | Cooler-1 Discharge & Blending Chute | 27.01.2025 | 7570 | --- | 27 | 34 | 5.28 | 30 | 1.20 | 25.84 | 50 |
| 11 | Cooler-2 Discharge | 27.01.2025 | 7571 | --- | 28 | 35 | 5.21 | 30 | 1.20 | 28.20 | 50 |
| 12 | Intermediate Bin & Blending | 28.01.2025 | 7607 | --- | 28 | 36 | 5.48 | 30 | 1.20 | 28.92 | 50 |
| 13 | Product House | 28.01.2025 | 7608 | --- | 27 | 35 | 5.77 | 30 | 1.20 | 27.91 | 50 |

| Sl. No | 2 X 100 TPD Sponge Iron Kiln 1 & 2 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|-------------------------------------|---|--|-----------|
| 10 | Cooler-1 Discharge & Blending Chute | 21489 | 20798 | - |
| 11 | Cooler-2 Discharge | 21234 | 20408 | - |
| 12 | Intermediate Bin & Blending | 22313 | 21526 | - |
| 13 | Product House | 23482 | 22560 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

P. B. M.

Analysed By
Priyanka B M
Chemist

K. R. Reddy

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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TC-5323

ANNEXURE-26
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 SI.No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : Pellet Plant-2 ESP |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 01.01.2025 & 16.01.2025 |
| 12 | Date of Sample Analysis | : 02.01.2025 & 17.01.2025 |
| 13 | Date Sample Analysis Completion | : 03.01.2025 & 18.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004175F |

Stack Details

| | | |
|---|----------------------|------|
| 1 | Fuel Used | Coal |
| 2 | Stack Height (mtr) | 100 |
| 3 | Stack Diameter (mtr) | 4.4 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------------------|----------------------------|-------------------|
| | | | | 1 st Fort Night | 2 nd Fort Night | |
| | | | | 01.01.2025 | 16.01.2025 | |
| | Date of Monitoring | | | | | |
| | Sample Code | | | | | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 26 | 27 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 62 | 61 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 6.06 | 6.36 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 331576 | 348391 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 294915 | 310717 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 34.12 | 35.67 | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): 1985 (RA 2014) | mg/Nm ³ | 129.0 | 148.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005(RA 2017) | mg/Nm ³ | 41.0 | 53.0 | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.016 | 0.019 | 1% |

Note: NS- Not Specified. RA: Reaffirmed. **INFERENCE:** The Measured Values are within the limits.

Priyanka B M
Analysed By
Priyanka B M
Chemist

K. Ramakrishna Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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ANNEXURE-27
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Vayubodhan Stack sampler/ **VBSS2**
Sl.No: Stack Monitoring Kit/ **032308**
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Sampling Location : **SID Axis 3&4**
- 10 Month of Sampling : **JANUARY-2025**
- 11 Date of Sample Received : 03.01.2025&18.01.2025
- 12 Date of Sample Analysis : 04.01.2025&20.01.2025
- 13 Date Sample Analysis Completion : 05.01.2025&20.01.2025
- 14 Report Issued Date : **03.02.2025**
- 15 Report Number : **ULR-TC532324000003655F**

Stack Details

- 1 Fuel Used : Coal
- 2 Stack Height (mtr) : 70.0
- 3 Stack Diameter (mtr) : 3.00

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------------------|----------------------------|-------------------|
| | | | | 1 st Fort Night | 2 nd Fort Night | |
| | | | | 03.01.2025 | 18.01.2025 | |
| | Date of Monitoring | | | 6916 | 7573 | |
| | Sample Code | | | 27 | 26 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 126 | 129 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 7.04 | 6.95 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 179064 | 176867 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 133632 | 131007 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 33.36 | 31.83 | 50 |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 171.0 | 202.0 | NS |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): 1985 (RA 2014) | mg/Nm ³ | 94.0 | 96.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005(RA 2017) | mg/Nm ³ | 0.163 | 0.091 | 1% |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | | | |

Note: NS- Not Specified. RA: Reaffirmed. **INFERENCE:** The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
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TC-5323

ANNEXURE-28
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : SID Axis 5&6 |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 06.01.2025&20.01.2025 |
| 12 | Date of Sample Analysis | : 07.01.2025&21.01.2025 |
| 13 | Date Sample Analysis Completion | : 08.01.2025&22.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004293F |

Stack Details

| | | |
|---|----------------------|------|
| 1 | Fuel Used | Coal |
| 2 | Stack Height (mtr) | 70.0 |
| 3 | Stack Diameter (mtr) | 3.00 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------------------|----------------------------|-------------------|
| | | | | 1 st Fort Night | 2 nd Fort Night | |
| | | | | 06.01.2005 | 20.01.2025 | |
| | Date of Monitoring | | | 06.01.2005 | 20.01.2025 | |
| | Sample Code | | | 69932 | 7385 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 28 | 28 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 129 | 134 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 6.97 | 7.23 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 177508 | 184017 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 131207 | 135364 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 29.08 | 32.94 | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): 1985 (RA 2014) | mg/Nm ³ | 271.0 | 209.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 0058 | 0044 | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.021 | 0.026 | 1% |

Note: NS- Not Specified. RA: Reaffirmed. **INFERENCE:** The Measured Values are within the limits.

P. B. M.
Analysed By
Priyanka B M
Chemist

K. R. Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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Website : www.globalmining.in



TC-5323

ANNEXURE-29
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : 1X70 MW-CFBC Boiler ESP |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 09.01.2025 & 23.01.2025 |
| 12 | Date of Sample Analysis | : 10.01.2025 & 24.01.2025 |
| 13 | Date Sample Analysis Completion | : 11.01.2025 & 24.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004346F |

Stack Details

| | | |
|---|----------------------|------|
| 1 | Fuel Used | Coal |
| 2 | Stack Height (mtr) | 70.0 |
| 3 | Stack Diameter (mtr) | 3.00 |

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|-----------------------------------|-------------------------------------|---------------------|------------------------------|------------------------------|-------------------|
| | | | | 1st Fort Night 08.01.2025 | 2nd Fort Night 22.01.2025 | |
| | Date of Monitoring Sample Code | | | 7080 | 7446 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 28 | 26 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 122 | 125 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 6.48 | 6.44 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 164813 | 163962 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 122964 | 128852 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 34.41 | 28.07 | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): 1985 (RA 2014) | mg/Nm ³ | 37.0 | 40.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 68.0 | 72.0 | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.019 | 0.021 | 1% |

Note: NS- Not Specified. RA: Reaffirmed. **INFERENCE:**

Priyanka B M
Analysed By
Priyanka B M
Chemist

K. Ramakrishna Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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TC-5323

ANNEXURE-30 GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : 2X70 MW CFBC Boiler ESP |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 09.01.2025&25.01.2025 |
| 12 | Date of Sample Analysis | : 10.01.2005&26.01.2025 |
| 13 | Date Sample Analysis Completion | : 11.01.2025&27.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004372F |

Stack Details

| | | |
|---|----------------------|-------|
| 1 | Fuel Used | Coal |
| 2 | Stack Height (mtr) | 110.0 |
| 3 | Stack Diameter (mtr) | 8.00 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|--|--|-------------------|
| | Date of Monitoring | | | 1 st Fort Night 09.01.2025 | 2 nd Fort Night 25.01.2025 | |
| | Sample Code | | | 7114 | 7534 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 26 | 26 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 125 | 192 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 7.27 | 7.35 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 1315677 | 1330358 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 977606 | 995573 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 37.52 | 38.27 | 50 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): 1985 (RA 2014) | mg/Nm ³ | 40.0 | 38.0 | 600 |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 105.0 | 152.0 | 300 |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.029 | 0.025 | NS |

Note: NS- Not Specified. RA: Reaffirmed **INFERENCE:** The Measured Values are within the limits

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-30A
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : SMS |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 10.01.2025&25.01.2025 |
| 12 | Date of Sample Analysis | : 11.01.2025&27.01.2025 |
| 13 | Date Sample Analysis Completion | : 12.01.2025&27.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004425F |

Stack Details

| | | |
|---|----------------------|-----|
| 1 | Fuel Used | - |
| 2 | Stack Height (mtr) | 86 |
| 3 | Stack Diameter (mtr) | 2.4 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------------------|----------------------------|-------------------|
| | | | | 1 st Fort Night | 2 nd Fort Night | |
| | | | | 10.01.2025 | 24.01.2025 | |
| | Date of Monitoring | | | 7178 | 7506 | |
| | Sample Code | | | | | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 26 | 27 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 69 | 82 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 7.51 | 6.76 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 122751 | 110087 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 106846 | 94266 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 24.64 | 22.51 | 50 |

Note: NS- Not Specified. RA: Reaffirmed INFERENCE: The Measured Values are within the limits

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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ANNEXURE-30B
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : Barmill |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 16.01.2025&29.01.2025 |
| 12 | Date of Sample Analysis | : 17.01.2025&30.01.2025 |
| 13 | Date Sample Analysis Completion | : 18.01.2025&31.01.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004454F |

Stack Details

| | | |
|---|----------------------|-----|
| 1 | Fuel Used | - |
| 2 | Stack Height (mtr) | 87 |
| 3 | Stack Diameter (mtr) | 3.0 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------|----------------|-------------------|
| | | | | 1st Fort Night | 2nd Fort Night | |
| | | | | 15.01.2025 | 28.01.2025 | |
| | Date of Monitoring | | | 7247 | 7606 | |
| | Sample Code | | | 27 | 28 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 189 | 176 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 8.08 | 7.90 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 205731 | 201158 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 132561 | 133473 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 37.05 | 35.09 | 50 |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 249.0 | 236.0 | NS |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): 1985 (RA 2014) | mg/Nm ³ | 88.0 | 75.0 | NS |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 0.901 | 0.831 | NS |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | | | |

Note: NS- Not Specified. RA: Reaffirmed INFERENCE: The Measured Values are within the limits

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-30C
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : Blast Furnance -Stove Waste Gas |
| 10 | Month of Sampling | : JANUARY-2025 |
| 11 | Date of Sample Received | : 31.01.2025 |
| 12 | Date of Sample Analysis | : 01.02.2025 |
| 13 | Date Sample Analysis Completion | : 01.02.2025 |
| 14 | Report Issued Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004661F |

Stack Details

| | | |
|---|----------------------|-----|
| 1 | Fuel Used | - |
| 2 | Stack Height (mtr) | 80 |
| 3 | Stack Diameter (mtr) | 2.4 |

Emission Details

| Sl. No. | Parameters | Method | Unit | Result | Permissible Limit |
|---------|----------------------------------|-------------------------------------|---------------------|----------------------------|-------------------|
| | | | | 2 nd Fort Night | |
| | | | | 31.01.2025 | |
| | | | | 7661 | |
| 1 | Ambient Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 31 | - |
| 2 | Stack Temperature | IS: 11255 (Part 1) - 1985 (RA 2014) | °C | 150 | - |
| 3 | Velocity of Fuel Gas | IS: 11255 (Part 3) - 1985 (RA 2014) | m/sec | 6.94 | - |
| 4 | Gas flow rate at Stack Condition | IS-11255(Part 03)1985(RA 2014) | m ³ /hr | 113117 | - |
| 5 | Gas flow rate at NTP | IS-11255(Part 03)1985(RA 2014) | Nm ³ /hr | 79648 | - |
| 6 | Particulate Matter | IS: 11255 (Part 1) - 1985 (RA 2014) | mg/Nm ³ | 20.54 | 30.0 |
| 7 | Sulphur Dioxide | IS: 11255 (Part 2): 1985 (RA 2014) | mg/Nm ³ | 80.0 | 200 |
| 8 | Nitrogen Dioxide | IS:11255 (Part7): 2005 (RA 2017) | mg/Nm ³ | 26.0 | 150 |
| 9 | Carbon Monoxide | GEMS/SOP/69 | % | 0.390 | 1% |

Note: NS- Not Specified. RA: Reaffirmed **INFERENCE:** The Measured Values are within the limits

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-31
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2025(1st Fort Night) |
| 10 | Date of Sample Received | : 10.01.2025 |
| 11 | Date of Sample Analysis | : 11.01.2025 |
| 12 | Date Sample Analysis Completion | : 12.01.2025 |
| 13 | Report Issued Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC532324000004426F |

RESULTS

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|-----------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Beneficiation Plant-2 | | | | | | | | | | | |
| 1 | Iron Ore Cone Crusher | NOT IN OPERATION | - | --- | - | - | - | 30 | 1.20 | - | 50 |
| 2 | Iron Ore Screening | 10.01.2025 | 7179 | Coal | 27 | 33 | 5.25 | 30 | 0.90 | 19.58 | 50 |

| Sl. No | Beneficiation Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|-----------------------|---|--|-----------|
| 1 | Iron Ore Cone Crusher | - | - | - |
| 2 | Iron Ore Screening | 12014 | 11555 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

INFERENCE: The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-32
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|--|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No: Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2025(1 st Fort Night) |
| 10 | Date of Sample Received | : 01.01.2025 |
| 11 | Date of Sample Analysis | : 02.01.2025 |
| 12 | Date Sample Analysis Completion | : 03.01.2025 |
| 13 | Report Issued Date | : 04.11.2024 |
| 14 | Report Number | : ULR-TC532324000004176F |

RESULTS

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|--|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Pellet Plant-II | | | | | | | | | | | |
| 3 | AGB main bag Filter | 01.01.2025 | 6836 | --- | 27 | 33 | 5.39 | 6.5 | 0.5 | 26.63 | 50 |
| 4 | Lime & Bentonite Powder bin top bag filter | 01.01.2025 | 6837 | --- | 28 | 35 | 5.15 | 6 | 0.35 | 22.46 | 50 |
| 5 | AGB De dusting Bag Filter | - | - | --- | - | - | - | 6 | 0.6 | - | 50 |
| 6 | Powder Coal main bag filter | - | - | --- | - | - | - | 6 | 0.6 | - | 50 |
| 7 | RP-6 Conveyor bag Filter | - | - | --- | - | - | - | 6 | 0.3 | - | 50 |
| 8 | Pellet discharge bin bag filter | 01.01.2025 | 6839 | --- | 29 | 41 | 5.15 | 20 | 0.5 | 29.84 | 50 |

| Sl. No | Pellet Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|--|---|--|-----------|
| 3 | AGB main bag Filter | 3808 | 3692 | - |
| 4 | Lime & Bentonite Powder bin top bag filter | 3638 | 3520 | - |
| 5 | AGB De dusting Bag Filter | - | - | - |
| 6 | Powder Coal main bag filter | - | - | - |
| 7 | RP-6 Conveyor bag Filter | - | - | - |
| 8 | Pellet discharge bin bag filter | 3638 | 3520 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS: 11255 (Part 03) (RA 2014) |
| Gas flow rate at NTP | IS: 11255 (Part 03) (RA 2014) |

INFERENCE: The measured values are within the limits

P. B.
Analysed By
Priyanka B M
Chemist

K. R.
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-33
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2025(1 st Fort Night) |
| 10 | Date of Sample Received | : 03.01.2025,04.01.2025,06.01.2025&07.01.2025 |
| 11 | Date of Sample Analysis | : 04.01.2025,05.01.2025,07.01.2025&08.01.2025 |
| 12 | Date Sample Analysis Completion | : 05.01.2025,06.01.2025,08.01.2025&09.01.2025 |
| 13 | Report Issued Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC53232400004246F |

RESULTS

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|--------------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| 2 X 500 TPD Sponge Iron Kiln 1 & 2 | | | | | | | | | | | |
| 9 | Cooler Discharge -1 | 03.01.2025 | 6882 | --- | 27 | 35 | 5.82 | 30 | 1.20 | 29.28 | 50 |
| 10 | Cooler Discharge -2 | 03.01.2025 | 6883 | --- | 29 | 36 | 5.31 | 30 | 1.20 | 26.71 | 50 |
| 11 | Coal stock house | 04.01.2025 | 6926 | --- | 30 | 34 | 4.90 | 30 | 1.20 | 13.98 | 50 |
| 12 | PSB 1 System-1 | 04.01.2025 | 6927 | --- | 27 | 36 | 5.33 | 30 | 1.20 | 30.03 | 50 |
| 13 | PSB 1 System-2 | 04.01.2025 | 6928 | --- | 28 | 37 | 5.63 | 30 | 1.20 | 31.90 | 50 |
| 14 | PSB 2 System-1 MCC | 06.01.2025 | 6994 | --- | 29 | 38 | 5.37 | 30 | 1.20 | 31.32 | 50 |
| 15 | PSB 1 System-2 Road | 06.01.2025 | 6995 | --- | 29 | 37 | 5.79 | 30 | 1.20 | 32.94 | 50 |
| 16 | Junction House Old & New | 06.01.2025 | 6996 | --- | 26 | 35 | 5.43 | 30 | 1.20 | 28.23 | 50 |
| 17 | Storage Bunker | 07.01.2025 | 7045 | --- | 27 | 34 | 5.01 | 30 | 1.20 | 21.95 | 50 |
| 18 | Dispatch | - | - | --- | - | - | - | 30 | 1.2 | - | 50 |

| Sl. No | 2 X 500 TPD Sponge Iron Kiln 1 & 2 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|------------------------------------|---|--|-----------|
| 9 | Cooler Discharge -1 | 23716 | 22926 | - |
| 10 | Cooler Discharge -2 | 21614 | 52813 | - |
| 11 | Coal stock house | 19966 | 19487 | - |
| 12 | PSB 1 System-1 | 21718 | 20960 | - |
| 13 | PSB 1 System-2 | 22915 | 22032 | - |
| 14 | PSB 2 System-1 MCC | 21875 | 21071 | - |
| 15 | PSB 1 System-2 Road | 23577 | 22586 | - |
| 16 | Junction House Old & New | 22111 | 21097 | - |
| 17 | Storage Bunker | 20030 | 19423 | - |
| 18 | Dispatch | - | - | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

INFERENCE: The Measured Values are within the limits

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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ANNEXURE-34
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Vayubodhan Stack sampler/ VBSS2
Sl.No:Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2025 (1st Fort Night)
- 10 Date of Sample Received : 07.01.2025&08.01.2025
- 11 Date of Sample Analysis : 08.01.2025&09.01.2025
- 12 Date Sample Analysis Completion : 09.01.2025&10.01.2025
- 13 Report Issued Date : 03.02.2025
- 14 Report Number : ULR-TC532324000004327F

RESULTS

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/s | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|---|---|--------------------|-------------|-----------|-------|-------|-------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| 2X500 TPD Sponge Iron Kiln 3&4 | | | | | | | | | | | |
| 19 | DE 3, Axis 3 CD | 07.01.2025 | 7044 | --- | 30 | 36 | 5.39 | 30 | 1.20 | 40.15 | 50 |
| 20 | DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By) | 07.01.2025 | 7147 | --- | 28 | 35 | 5.82 | 30 | 1.20 | 34.34 | 50 |
| 21 | DE 8 & 12 I-Bin, (Stand By) | 08.01.2025 | 7084 | --- | 28 | 36 | 5.27 | 30 | 1.20 | 30.52 | 50 |
| 22 | DE 9 & 10 PSB 1 & 2 Product Separation bin | 08.01.2025 | 7085 | --- | 26 | 35 | 5.21 | 30 | 1.20 | 32.65 | 50 |
| 23 | Coal Dryer | 08.01.2025 | 7083 | --- | 27 | 38 | 6.63 | 30 | 1.20 | 37.65 | 50 |

| Sl. No | 2X500 TPD Sponge Iron Kiln 3&4 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|---|---|--|-----------|
| 19 | DE 3, Axis 3 CD | 21948 | 21078 | - |
| 20 | DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By) | 23698 | 22597 | - |
| 21 | DE 8 & 12 I-Bin, (Stand By) | 53848 | 51843 | - |
| 22 | DE 9 & 10 PSB 1 & 2 Product Separation bin | 53177 | 50883 | - |
| 23 | Coal Dryer | 27003 | 2659 | - |

INFERENCE: The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-35
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2025(2 nd Fort Night) |
| 10 | Date of Sample Received | : 25.01.2025 |
| 11 | Date of Sample Analysis | : 26.01.2025 |
| 12 | Date Sample Analysis Completion | : 27.01.2025 |
| 13 | Report Issued Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC532324000004592F |

RESULTS

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|--|-----------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Beneficiation Plant-2 | | | | | | | | | | | |
| 1 | Iron Ore Cone Crusher | - | - | --- | - | - | - | - | - | - | 50 |
| 2 | Iron Ore Screening | 25.01.2025 | 7535 | --- | 27 | 34 | 5.04 | 30 | 0.90 | 24.02 | 50 |

| Sl. No | Beneficiation Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|-----------------------|---|--|-----------|
| 1 | Iron Ore Cone Crusher | - | - | - |
| 2 | Iron Ore Screening | 11565 | 11096 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

INFERENCE: The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-36

GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Vayubodhan Stack sampler/ **VBSS2**
Sl.No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **JANUARY-2025(2nd Fort Night)**
- 10 Date of Sample Received : 17.01.2025
- 11 Date of Sample Analysis : 18.01.2025
- 12 Date Sample Analysis Completion : 18.01.2025
- 13 Report Issued Date : **03.02.2025**
- 14 Report Number : **ULR-TC532324000004469F**

RESULTS

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|---|--|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| Pellet Plant | | | | | | | | | | | |
| 3 | AGB main bag Filter | 16.01.2025 | 7288 | --- | 29 | 34 | 5.61 | 6.5 | 0.5 | 21.09 | 50 |
| 4 | Lime & Bentonite Powder bin top bag filter | 16.01.2025 | 7289 | --- | 30 | 35 | 5.23 | 6 | 0.35 | 24.68 | 50 |
| 5 | AGB De dusting Bag Filter | - | - | --- | - | - | - | 6 | 0.6 | - | 50 |
| 6 | Powder Coal main bag filter | - | - | --- | - | - | - | 6 | 0.6 | - | 50 |
| 7 | RP-6 Conveyor bag Filter | - | - | --- | - | - | - | 6 | 0.3 | - | 50 |
| 8 | Pellet discharge bin bag filter | 16.01.2025 | 7290 | --- | 29 | 39 | 5.44 | 20 | 0.5 | 28.91 | 50 |

| Sl. No | Pellet Plant | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|--|---|--|-----------|
| 3 | AGB main bag Filter | 3301 | 3177 | - |
| 4 | Lime & Bentonite Powder bin top bag filter | 1587 | 1521 | - |
| 5 | AGB De dusting Bag Filter | - | - | - |
| 6 | Powder Coal main Bagfilter | - | - | - |
| 7 | RP-6 Conveyor bag Filter | - | - | - |
| 8 | Pellet discharge bin Bagfilter | 3848 | 3654 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

INFERENCE:--The Measured Values are within the limits.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-37
GEMS-LD/TF/10/01

Analysis Report of Stack Emission

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.202421 Calibration Due Date: 27.03.2025 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2025(2nd Fort Night) |
| 10 | Date of Sample Received | : 18.01.2025,20.01.2025&21.01.2025&22.01.2025 |
| 11 | Date of Sample Analysis | : 20.01.2025,21.01.2025&22.01.2025&23.01.2025 |
| 12 | Date Sample Analysis Completion | : 21.01.2025,22.01.2025&23.01.2025&24.01.2025 |
| 13 | Report Issued Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC532324000004491F |

RESULTS

| Sl. No | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/Sec | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|---|--------------------------|--------------------|-------------|-----------|-------|-------|---------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| 2 X 500 TPD Sponge Iron Kiln 1 & 2 | | | | | | | | | | | |
| 9 | Cooler Discharge -1 | 18.01.2025 | 7347 | Coal | 29 | 34 | 5.82 | 30 | 1.2 | 29.37 | 50 |
| 10 | Cooler Discharge -2 | 18.01.2025 | 7348 | Coal | 31 | 35 | 5.31 | 30 | 1.2 | 26.88 | 50 |
| 11 | Coal stock house | 20.01.2025 | 7386 | Coal | 29 | 34 | 5.17 | 30 | 1.2 | 12.10 | 50 |
| 12 | PSB 1 System-1 | 20.01.2025 | 7387 | Coal | 30 | 36 | 5.60 | 30 | 1.2 | 35.48 | 50 |
| 13 | PSB 1 System-2 | 20.01.2025 | 7388 | Coal | 29 | 35 | 5.80 | 30 | 1.2 | 31.72 | 50 |
| 14 | PSB 2 System-1 MCC | 21.01.2025 | 7413 | Coal | 30 | 37 | 5.12 | 30 | 1.2 | 35.26 | 50 |
| 15 | PSB 1 System-2 Road | 21.01.2025 | 7414 | Coal | 28 | 35 | 5.91 | 30 | 1.2 | 36.00 | 50 |
| 16 | Junction House Old & New | 21.01.2025 | 7415 | Coal | 29 | 37 | 5.63 | 30 | 1.2 | 30.47 | 50 |
| 17 | Storage Bunker | 22.01.2025 | 7045 | Coal | 26 | 34 | 5.22 | 30 | 1.2 | 25.32 | 50 |
| 18 | Dispatch | - | - | --- | - | - | - | 30 | 1.2 | - | 50 |

| Sl. No | 2 X 500 TPD Sponge Iron Kiln 1 & 2 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|------------------------------------|---|--|-----------|
| 9 | Cooler Discharge -1 | 23716 | 22926 | - |
| 10 | Cooler Discharge -2 | 21614 | 20813 | - |
| 11 | Coal stock house | 21071 | 20432 | - |
| 12 | PSB 1 System-1 | 22789 | 21914 | - |
| 13 | PSB 1 System-2 | 23637 | 22642 | - |
| 14 | PSB 2 System-1 MCC | 20400 | 19702 | - |
| 15 | PSB 1 System-2 Road | 20115 | 19353 | - |
| 16 | Junction House Old & New | 18772 | 17971 | - |
| 17 | Storage Bunker | 18161 | 17490 | - |
| 18 | Dispatch | - | - | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

INFERENCE: The Measured Values are within the limits.

Priyanka B M
Analysed By
Priyanka B M
Chemist

K. Ramakrishna Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-38 GEMS-LD/TF/10/01

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Vayubodhan Stack sampler/ **VBSS2**
Sl.No:Stack Monitoring Kit/ **032308**
- 5 Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **JANUARY-2025(2nd Fort Night)**
- 10 Date of Sample Received : 22.01.2025&24.01.2025
- 11 Date of Sample Analysis : 23.01.2025&25.01.2025
- 12 Date Sample Analysis Completion : 24.01.2025&26.01.2025
- 13 Report Issued Date : **03.02.2025**
- 14 Report Number : **ULR-TC532324000004540F**

RESULTS

| Sl. NO | Stack Attached to | Date of Monitoring | Sample Code | Fuel Used | Ta °C | TS °C | V m/s | Height (m) | Diameter (m) | PM mg/Nm ³ | KSPCB Std mg/Nm ³ |
|---|---|--------------------|-------------|-----------|-------|-------|-------|------------|--------------|-----------------------|------------------------------|
| Chimneys attached to Bag Filter (De dusting Units) | | | | | | | | | | | |
| 2X500 TPD Sponge Iron Kiln 3&4 | | | | | | | | | | | |
| 19 | DE 3, Axis 3 CD | 22.01.2025 | 7448 | --- | 29 | 35 | 5.77 | 30 | 1.20 | 30.79 | 50 |
| 20 | DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By) | 22.01.2025 | 7449 | --- | 30 | 36 | 6.07 | 30 | 1.20 | 32.67 | 50 |
| 21 | DE 8 & 12 I-Bin, (Stand By) | 24.01.2025 | 7507 | --- | 29 | 38 | 5.52 | 30 | 1.90 | 33.96 | 50 |
| 22 | DE 9 & 10 PSB 1 & 2 Product Separation bin | 24.01.2025 | 7508 | --- | 28 | 37 | 5.21 | 30 | 1.90 | 34.69 | 50 |
| 23 | Coal Dryer | 24.01.2025 | 7509 | --- | 31 | 38 | 6.51 | 30 | 1.20 | 37.55 | 50 |

| Sl. No | 2X500 TPD Sponge Iron Kiln 3&4 | Gas flow rate at Stack Condition m ³ /hr | Gas flow rate at NTP Nm ³ /hr | KSPCB Std |
|--------|---|---|--|-----------|
| 19 | DE 3, Axis 3 CD | 18.79 | 17390 | - |
| 20 | DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By) | 19586 | 18771 | - |
| 21 | DE 8 & 12 I-Bin, (Stand By) | 51041 | 49267 | - |
| 22 | DE 9 & 10 PSB 1 & 2 Product Separation bin | 50225 | 48290 | - |
| 23 | Coal Dryer | 20808 | 19856 | - |

| Parameter | Protocol |
|--|---|
| Particulate Matter (mg/Nm ³) | IS: 11255 (Part 1) - 1985 (reaffirmed 2014) |
| Gas flow rate at Stack Condition | IS-11255(Part 03) (RA 2014) |
| Gas flow rate at NTP | IS-11255(Part 03) (RA 2014) |

INFERENCE: The Measured Values are within the limits.

Priyanka B M
Analysed By
Priyanka B M
Chemist

K. Ramakrishna Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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TC-5323

ANNEXURE-40
GEMS-LD/TF/08/01

NOISE LEVEL MONITORING REPORT

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Noise Level Monitoring
Particulars of Sample Collected : Lutron: SL- 4023SD
Sl. No: Q679952
Instrument Details : Date of Calibration:16.12.2024
Calibration Due Date:15.12.2025
Month : **JANUARY-2025**
Report Issue Date : **03.02.2025**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000003528F**

| Sl. No | Location | Date of Monitoring | Noise Level dB (A) | | Standard |
|--------|-------------------------------|--------------------|--------------------|------|----------|
| | | | Day Time | | |
| | | | Min | Max | |
| 1 | Main Gate | 01.01.2025 | 49.8 | 58.6 | 75 |
| 2 | Near ATM | 01.01.2025 | 46.4 | 52.1 | 75 |
| 3 | Transit House | 02.01.2025 | 51.4 | 64.8 | 75 |
| 4 | CAAQMS Station | 02.01.2025 | 49.2 | 57.2 | 75 |
| 5 | Gunda Road | 03.01.2025 | 44.6 | 62.5 | 75 |
| 6 | Gunda Railway Station | 03.01.2025 | 46.2 | 59.0 | 75 |
| 7 | Bagging Shed | 04.01.2025 | 59.8 | 66.0 | 75 |
| 8 | Railway Siding | 04.01.2025 | 53.9 | 61.2 | 75 |
| 9 | 4th Gate | 06.01.2025 | 53.5 | 59.2 | 75 |
| 10 | Bricks Plant | 06.01.2025 | 43.5 | 52.8 | 75 |
| 11 | Kempuhalla (Wagon Tippler) | 07.01.2025 | 50.8 | 57.8 | 75 |
| 12 | Danapura Bridge | 07.01.2025 | 59.0 | 68.2 | 75 |
| 13 | 2nd Gate | 08.01.2025 | 52.8 | 63.5 | 75 |
| 14 | Project Store | 08.01.2025 | 47.8 | 54.6 | 75 |
| 15 | Dispatch (Truck Parking Area) | 08.01.2025 | 63.4 | 71.4 | 75 |

Note: Each Location above the Noise Level taken Readings 15 Minutes.

INFERENCE

As per CPCB Standards,

Report Status: - Measured Values for the above parameters are within the limit.

[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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TC-5323

ANNEXURE-41
GEMS-LD/TF/08/01

NOISE LEVEL MONITORING REPORT

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Noise Level Monitoring
Particulars of Sample Collected : Lutron: SL- 4023SD
SL No: Q679952
Instrument Details : Date of Calibration: 16.12.2024
Calibration Due Date: 15.12.2025
Month : JANUARY-2025
Report Issue Date : 03.02.2025
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : ULR-TC532324000003846F

| Sl. No | Location | Date of Monitoring | Noise Level dB (A) | | |
|--------|-------------------------------|--------------------|--------------------|------|----------|
| | | | Day Time | | Standard |
| | | | Min | Max | |
| 1 | Main Gate | 16.01.2025 | 50.1 | 58.2 | 75 |
| 2 | Near ATM | 16.01.2025 | 48.6 | 54.6 | 75 |
| 3 | Transit House | 17.01.2025 | 49.6 | 59.2 | 75 |
| 4 | CAAQMS Station | 17.01.2025 | 42.8 | 49.9 | 75 |
| 5 | Gunda Road | 18.01.2025 | 46.4 | 56.7 | 75 |
| 6 | Gunda Railway Station | 18.01.2025 | 58.0 | 67.2 | 75 |
| 7 | Bagging Shed | 20.01.2025 | 56.7 | 65.0 | 75 |
| 8 | Railway Siding | 20.01.2025 | 60.9 | 67.2 | 75 |
| 9 | 4th Gate | 21.01.2025 | 50.3 | 59.6 | 75 |
| 10 | Bricks Plant | 21.01.2025 | 48.2 | 56.1 | 75 |
| 11 | Kempuhalla (Wagon Tippler) | 22.01.2025 | 48.2 | 56.1 | 75 |
| 12 | Danapura Bridge | 22.01.2025 | 59.9 | 66.0 | 75 |
| 13 | 2nd Gate | 23.01.2025 | 47.6 | 59.4 | 75 |
| 14 | Project Store | 23.01.2025 | 45.6 | 54.6 | 75 |
| 15 | Dispatch (Truck Parking Area) | 23.01.2025 | 68.7 | 71.4 | 75 |

Note: Each Location above the Noise Level taken Readings 15 Minutes.

INFERENCE As per CPCB Standards,
Report Status: - Measured Values for the above parameters are within the limit.

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-42
GEMS-LD/TF/08/01

AMBIENT NOISE LEVEL MONITORING REPORT

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Noise Level Monitoring
Particulars of Sample Collected : Lutron: SL- 4023SD
Sl. No: Q679953
Instrument Details : Date of Calibration:16.12.2024
Calibration Due Date:15.12.2025
Month : JANUARY-2025
Report Issue Date : 03.02.2025
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : ULR-TC532324000004186F

| Sl. No | Location | Date of Monitoring | Noise Level dB (A) | | | | | | | |
|--------|----------------------|--------------------|--------------------|------|-------|----------|------------|------|-------|----------|
| | | | Day Time | | | Standard | Night Time | | | Standard |
| | | | Min | Max | Avg | | Min | Max | Avg | |
| 1 | Danapur Village | 01.01.2025 | 42.1 | 51.2 | 46.65 | 55 | 35.2 | 41.8 | 38.00 | 45 |
| 2 | Mariyammana Halli | 02.01.2025 | 41.4 | 50.5 | 45.95 | | 36.5 | 41.2 | 38.85 | |
| 3 | Hanumana Halli | 03.01.2025 | 40.2 | 52.3 | 46.25 | | 37.5 | 43.5 | 40.50 | |
| 4 | Galemmanagudi | 04.01.2025 | 44.5 | 54.8 | 49.65 | | 39.9 | 40.8 | 40.35 | |
| 5 | G.Nagalapura Village | 06.01.2025 | 43.9 | 53.6 | 48.75 | | 38.5 | 41.6 | 40.05 | |
| 6 | Gunda Tanda Village | 07.01.2025 | 45.1 | 51.4 | 48.25 | | 35.8 | 42.7 | 39.25 | |

Note: Each Location above the Noise Level taken Readings 15 Minutes.

| | |
|-----------|---|
| INFERENCE | As per CPCB Standards, Report Status: - Measured Values for the above parameters are within the limit. |
|-----------|---|

K. Ramakrishna Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

NOISE: (AMBIENT STANDARDS)

| Area code | Category of Area | Limit in dB(A) Leq | |
|-----------|------------------|--------------------|------------|
| | | Day Time | Night Time |
| A | Industrial Area | 75 | 70 |
| B | Commercial Area | 65 | 55 |
| C | Residential Area | 55 | 45 |
| D | Silence Area | 50 | 40 |



Note:

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Website : www.globalmining.in



TC-5323

ANNEXURE-43
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6934 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004254F |

Results

| Sl. No. | Parameters | Protocol | Unit | Danapur Village (GW1) | Standards as per IS: 10500:2012 | |
|---------|---------------------------------------|--|-------|-----------------------|---------------------------------|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.11 | 6.5 to 8.5 | NR |
| 2. | Conductivity | APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58) | μS/cm | 2890 | - | - |
| 3. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 1734 | 500 | 2000 |
| 4. | Turbidity (NTU) | APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15) | NTU | 0.4 | 1 | 5 |
| 5. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | <1.0 | - | - |
| 6. | Sulphate as SO ₄ | APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200) | mg/L | 218.42 | 200 | 400 |
| 7. | Phosphorus as P | APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164) | mg/L | Nil | - | - |
| 8. | Sodium as Na | APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100) | mg/L | 566.25 | - | - |
| 9. | Potassium as K | APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90) | mg/L | 0.00 | - | - |
| 10. | Calcium as Ca | APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70) | mg/L | 174.15 | 75 | 200 |
| 11. | Magnesium as Mg | APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86) | mg/L | 87.48 | 30 | 100 |
| 12. | Total Hardness as CaCO ₃ | APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50) | mg/L | 581.40 | 200 | 600 |
| 13. | Chloride as Cl | APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76) | mg/L | 335.00 | 250 | 1000 |
| 14. | Fluoride as F | APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91) | mg/L | 0.82 | 1 | 1.5 |
| 15. | Nitrate Nitrogen as NO ₃ | APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132) | mg/L | 12.68 | 45 | NR |
| 16. | Total Alkalinity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-37 to 2-39) | mg/L | 533.82 | 200 | 600 |

Note:

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TC-5323

ANNEXURE-43

| | | | | | | |
|-----|------------------------------|--|------|-----------------|------|------|
| 17. | Acidity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-34 to 2-36) | mg/L | Nil | - | - |
| 18. | Total Iron as Fe | APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82) | mg/L | 0.13 | 0.30 | NR |
| 19. | Nickel as Ni | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.02 | 0.02 | NR |
| 20. | Manganese as Mn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.1 | 0.10 | 0.30 |
| 21. | Copper as Cu | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.05 | 1.50 |
| 22. | Zinc as Zn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <1.0 | 5 | 15 |
| 23. | Lead as Pb | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.01 | NR |
| 24. | Arsenic as As | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.01 | 0.01 | 0.05 |
| 25. | Chromium as Cr | APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72) | mg/L | <0.01 | 0.05 | NR |

Note: GW1: Danapur Village. NR-No relaxation.

| | |
|------------------|---|
| INFERENCE | As per Standards IS: 10500:2012 Report Status: - Measured Values for the above parameters are within the limits. |
|------------------|---|

P. B. M.
Analysed By
Priyanka B M
Chemist

K. R. Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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ANNEXURE-43
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | | |
|----|---------------------------------|---|---|
| 1 | Name of the Industry | : | BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : | WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : | GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : | Grab Sampling |
| 5 | Sampling Procedure | : | GEMS-LD/SOP/32 |
| 6 | Discipline | : | Chemical/Biological |
| 7 | Group | : | Pollution & Environment |
| 8 | Sample Type | : | Ground Water |
| 9 | Sample Code | : | 6934 |
| 10 | Date of Sampling | : | 04.01.2025 |
| 11 | Sample Received | : | 04.01.2025 |
| 12 | Date of Analysis | : | 04.01.2025 |
| 13 | Date of Analysis Completion | : | 10.01.2025 |
| 14 | Report Issue Date | : | 03.02.2025 |
| 15 | Report Number | : | GEMS/WATER/2024-2025/4254 |

Results

| Sl. No | Parameters | Protocol | Unit | Danapur Village (GW1) | Standards as per IS: 10500:2012 | |
|--------|-------------------------------|--|------------------|-----------------------|---|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | Color | APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8) | Hazen | <5 | 5 | 15 |
| 2. | Cadmium as Cd | APHA-23RD Edition-3111 -B (Pg No.3 -20 to 3-21) | mg/L | BDL | 0.003 | NR |
| 3. | Total Coli form count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |
| 4. | <i>Escherichia coli</i> count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |

Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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TC-5323

ANNEXURE-44
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

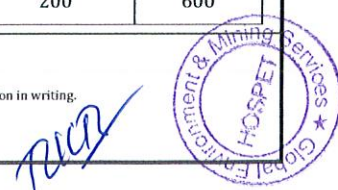
| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6936 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004256F |

Results

| Sl. No | Parameters | Protocol | Unit | Hanumanahalli Village (GW2) | Standards as per IS: 10500:2012 | |
|--------|---------------------------------------|--|-------|-----------------------------|---------------------------------|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.71 | 6.5 to 8.5 | NR |
| 2. | Conductivity | APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58) | µS/cm | 1480 | - | - |
| 3. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 852 | 500 | 2000 |
| 4. | Turbidity (NTU) | APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15) | NTU | 0.6 | 1 | 5 |
| 5. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | <1.0 | - | - |
| 6. | Sulphate as SO ₄ | APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200) | mg/L | 196.12 | 200 | 400 |
| 7. | Phosphorus as P | APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164) | mg/L | Nil | - | - |
| 8. | Sodium as Na | APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100) | mg/L | 270.5 | - | - |
| 9. | Potassium as K | APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90) | mg/L | 0.0 | - | - |
| 10. | Calcium as Ca | APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70) | mg/L | 58.05 | 75 | 200 |
| 11. | Magnesium as Mg | APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86) | mg/L | 34.02 | 30 | 100 |
| 12. | Total Hardness as CaCO ₃ | APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50) | mg/L | 208.8 | 200 | 600 |
| 13. | Chloride as Cl | APHA 23 rd Edition 2017 4500 Cl- | mg/L | 113.90 | 250 | 1000 |
| 14. | Fluoride as F | APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91) | mg/L | 0.68 | 1 | 1.5 |
| 15. | Nitrate Nitrogen as NO ₃ | APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132) | mg/L | 19.84 | 45 | NR |
| 16. | Total Alkalinity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-37 to 2-39) | mg/L | 238.7 | 200 | 600 |

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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GEMS

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| | | | | | | |
|-----|------------------------------|--|------|-----------------|------|------|
| 17. | Acidity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-34 to 2-36) | mg/L | Nil | - | - |
| 18. | Total Iron as Fe | APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82) | mg/L | 0.11 | 0.30 | NR |
| 19. | Nickel as Ni | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.02 | 0.02 | NR |
| 20. | Manganese as Mn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.1 | 0.10 | 0.30 |
| 21. | Copper as Cu | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.05 | 1.50 |
| 22. | Zinc as Zn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <1.0 | 5 | 15 |
| 23. | Lead as Pb | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.01 | NR |
| 24. | Arsenic as As | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.01 | 0.01 | 0.05 |
| 25. | Chromium as Cr | APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72) | mg/L | <0.01 | 0.05 | NR |

Note: GW2: Hanumanahalli Village. NR-No relaxation.**INFERENCE****As per Standards IS: 10500:2012****Report Status: - Measured Values for the above parameters are within the limit.**


Analysed By
Priyanka B M
Chemist


Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

**Note:**

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
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ANNEXURE-44
GEMS-LD/TF/23/01


Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical/Biological |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6936 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : GEMS/WATER/2024-2025/4256 |

Results

| Sl. No | Parameters | Protocol | Unit | Hanumanahalli Village (GW2) | Standards as per IS: 10500:2012 | |
|--------|-------------------------------|--|------------------|-----------------------------|---|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | Color | APHA-23RD Edition-2120 C (Pg No. 2-7 to 2-8) | Hazen | <5 | 5 | 15 |
| 2. | Cadmium as Cd | APHA-23RD Edition-3111-B (Pg No.3-20 to 3-21) | mg/L | BDL | 0.003 | NR |
| 3. | Total Coli form count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |
| 4. | <i>Escherichia coli</i> count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |

Note: Ab: Absent, NR: No Relaxation


Analysed By
Priyanka B M
Chemist


Authorised Signatory
K. Ramakrishna Reddy
Technical Manager


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TC-5323

ANNEXURE-45
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6038 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC5323240000004257F |

Results

| Sl. No | Parameters | Protocol | Unit | Galemmana Gudi Village (GW3) | Standards as per IS: 10500:2012 | |
|--------|---------------------------------------|--|-------|------------------------------|---------------------------------|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.66 | 6.5 to 8.5 | NR |
| 2. | Conductivity | APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58) | μS/cm | 2600 | - | - |
| 3. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 1560 | 500 | 2000 |
| 4. | Turbidity (NTU) | APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15) | NTU | 0.4 | 1 | 5 |
| 5. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | <1.0 | - | - |
| 6. | Sulphate as SO ₄ | APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200) | mg/L | 152.34 | 200 | 400 |
| 7. | Phosphorus as P | APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164) | mg/L | Nil | - | - |
| 8. | Sodium as Na | APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100) | mg/L | 340.05 | - | - |
| 9. | Potassium as K | APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90) | mg/L | 0.00 | - | - |
| 10. | Calcium as Ca | APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70) | mg/L | 137.36 | 75 | 200 |
| 11. | Magnesium as Mg | APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86) | mg/L | 230.85 | 30 | 100 |
| 12. | Total Hardness as CaCO ₃ | APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50) | mg/L | 730.3 | 200 | 600 |
| 13. | Chloride as Cl | APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76) | mg/L | 381.90 | 250 | 1000 |
| 14. | Fluoride as F | APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91) | mg/L | 1.14 | 1 | 1.5 |
| 15. | Nitrate Nitrogen as NO ₃ | APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132) | mg/L | 19.24 | 45 | NR |
| 16. | Total Alkalinity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-37 to 2-39) | mg/L | 475.23 | 200 | 600 |

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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TC-5323

ANNEXURE-45

| | | | | | | |
|-----|------------------------------|--|------|-------|------|------|
| 17. | Acidity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-34 to 2-36) | mg/L | Nil | - | - |
| 18. | Total Iron as Fe | APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82) | mg/L | 0.12 | 0.30 | NR |
| 19. | Nickel as Ni | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.02 | 0.02 | NR |
| 20. | Manganese as Mn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.1 | 0.10 | 0.30 |
| 21. | Copper as Cu | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.05 | 1.50 |
| 22. | Zinc as Zn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <1.0 | 5 | 15 |
| 23. | Lead as Pb | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.01 | NR |
| 24. | Arsenic as As | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.01 | 0.01 | 0.05 |
| 25. | Chromium as Cr | APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72) | mg/L | <0.01 | 0.05 | NR |

Note: GW3: GalemmanaGudi Village. NR-No relaxation.

| | |
|------------------|---|
| INFERENCE | As per Standards IS: 10500:2012 Report Status: - Measured Values for the above parameters are Within the limits. |
|------------------|---|

[Signature]
Analysed By
 Priyanka B M
 Chemist

[Signature]
Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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ANNEXURE-45
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical/Biological |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6937 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : GEMS/WATER/2024-2025/4257 |

Results

| Sl. No | Parameters | Protocol | Unit | Galemmana Gudi Village (GW3) | Standards as per IS: 10500:2012 | |
|--------|-------------------------------|--|------------------|------------------------------|---|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | Color | APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8) | Hazen | <5 | 5 | 15 |
| 2. | Cadmium as Cd | APHA-23RD Edition-3111 -B (Pg No.3 -20 to 3-21) | mg/L | BDL | 0.003 | NR |
| 3. | Total Coli form count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |
| 4. | <i>Escherichia coli</i> count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |

Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-46
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6935 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004255F |

Results

| Sl. No | Parameters | Protocol | Unit | Mariyammana Halli Village (GW4) | Standards as per IS: 10500:2012 | |
|--------|---------------------------------------|--|-------|---------------------------------|---------------------------------|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.48 | 6.5 to 8.5 | NR |
| 2. | Conductivity | APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58) | µS/cm | 2730 | - | - |
| 3. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 1638 | 500 | 2000 |
| 4. | Turbidity (NTU) | APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15) | NTU | 0.4 | 1 | 5 |
| 5. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | <1.0 | - | - |
| 6. | Sulphate as SO ₄ | APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200) | mg/L | 201.32 | 200 | 400 |
| 7. | Phosphorus as P | APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164) | mg/L | Nil | - | - |
| 8. | Sodium as Na | APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100) | mg/L | 339.9 | - | - |
| 9. | Potassium as K | APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90) | mg/L | 0.00 | - | - |
| 10. | Calcium as Ca | APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70) | mg/L | 209.31 | 75 | 200 |
| 11. | Magnesium as Mg | APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86) | mg/L | 43.74 | 30 | 100 |
| 12. | Total Hardness as CaCO ₃ | APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50) | mg/L | 595.68 | 200 | 600 |
| 13. | Chloride as Cl | APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76) | mg/L | 467.08 | 250 | 1000 |
| 14. | Fluoride as F | APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91) | mg/L | 0.62 | 1 | 1.5 |
| 15. | Nitrate Nitrogen as NO ₃ | APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132) | mg/L | 20.10 | 45 | NR |
| 16. | Total Alkalinity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-37 to 2-39) | mg/L | 551.18 | 200 | 600 |

Note:

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TC-5323

ANNEXURE-46

| | | | | | | |
|-----|------------------------------|--|------|-------|------|------|
| 17. | Acidity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-34 to 2-36) | mg/L | Nil | - | - |
| 18. | Total Iron as Fe | APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82) | mg/L | 0.14 | 0.30 | NR |
| 19. | Nickel as Ni | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.02 | 0.02 | NR |
| 20. | Manganese as Mn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.1 | 0.10 | 0.30 |
| 21. | Copper as Cu | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.05 | 1.50 |
| 22. | Zinc as Zn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <1.0 | 5 | 15 |
| 23. | Lead as Pb | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.01 | NR |
| 24. | Arsenic as As | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.01 | 0.01 | 0.05 |
| 25. | Chromium as Cr | APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72) | mg/L | <0.01 | 0.05 | NR |

Note: GW4: Mariyammanahalli Village. NR-No relaxation

| | |
|------------------|--|
| INFERENCE | As per Standards IS: 10500:2012 Report Status: - Measured Values for the above parameters are Within the limit. |
|------------------|--|

P. B. M.
Analysed By
Priyanka B M
Chemist

K. Ramakrishna Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
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e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in

ANNEXURE-46
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical/Biological |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6935 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : GEMS/WATER/2024-2025/4255 |

Results

| Sl. No | Parameters | Protocol | Unit | Mariyammana Halli Village (GW4) | Standards as per IS: 10500:2012 | |
|--------|-------------------------------|--|------------------|---------------------------------|---|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | Color | APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8) | Hazen | <5 | 5 | 15 |
| 2. | Cadmium as Cd | APHA-23RD Edition-3111 -B (Pg No.3 -20 to 3-21) | mg/L | BDL | 0.003 | NR |
| 3. | Total Coli form count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |
| 4. | <i>Escherichia coli</i> count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |

Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-47
GEMS-LD/TF/23/01**Analysis Report of Water Quality Data**

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6938 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004258F |

Results

| Sl. No | Parameters | Protocol | Unit | Gunda Thanda (GW5) | Standards as per IS: 10500:2012 | |
|--------|---------------------------------------|--|-------|--------------------|---------------------------------|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.60 | 6.5 to 8.5 | NR |
| 2. | Conductivity | APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58) | µS/cm | 1040 | - | - |
| 3. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 624 | 500 | 2000 |
| 4. | Turbidity (NTU) | APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15) | NTU | 0.5 | 1 | 5 |
| 5. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | <1.0 | - | - |
| 6. | Sulphate as SO ₄ | APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200) | mg/L | 218.46 | 200 | 400 |
| 7. | Phosphorus as P | APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164) | mg/L | Nil | - | - |
| 8. | Sodium as Na | APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100) | mg/L | 143.15 | - | - |
| 9. | Potassium as K | APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90) | mg/L | 0.00 | - | - |
| 10. | Calcium as Ca | APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70) | mg/L | 33.52 | 75 | 200 |
| 11. | Magnesium as Mg | APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86) | mg/L | 23.08 | 30 | 100 |
| 12. | Total Hardness as CaCO ₃ | APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50) | mg/L | 122.40 | 200 | 600 |
| 13. | Chloride as Cl | APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76) | mg/L | 57.42 | 250 | 1000 |
| 14. | Fluoride as F | APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91) | mg/L | 1.08 | 1 | 1.5 |
| 15. | Nitrate Nitrogen as NO ₃ | APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132) | mg/L | 16.72 | 45 | NR |
| 16. | Total Alkalinity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-37 to 2-39) | mg/L | 188.79 | 200 | 600 |

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
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TC-5323

ANNEXURE-47


| | | | | | | |
|-----|------------------------------|--|------|-------|------|------|
| 17. | Acidity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-34 to 2-36) | mg/L | Nil | - | - |
| 18. | Total Iron as Fe | APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82) | mg/L | 0.13 | 0.30 | NR |
| 19. | Nickel as Ni | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.02 | 0.02 | NR |
| 20. | Manganese as Mn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.1 | 0.10 | 0.30 |
| 21. | Copper as Cu | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.05 | 1.50 |
| 22. | Zinc as Zn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <1.0 | 5 | 15 |
| 23. | Lead as Pb | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.01 | NR |
| 24. | Arsenic as As | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.01 | 0.01 | 0.05 |
| 25. | Chromium as Cr | APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72) | mg/L | <0.01 | 0.05 | NR |


Note: GW5: Gunda Thanda. NR-No relaxation.

INFERENCE

As per Standards IS: 10500:2012

Report Status: - Measured Values for the above parameters are within the limit.


Analysed By
 Priyanka B M
 Chemist


Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager



Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
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ANNEXURE-47
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical/Biological |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6938 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : GEMS/WATER/2024-2025/4258 |

Results

| Sl. No | Parameters | Protocol | Unit | Gunda Thanda (GW5) | Standards as per IS: 10500:2012 | |
|--------|------------------------|---|--------------|--------------------|---|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | Color | APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8) | Hazen | <5 | 5 | 15 |
| 2. | Cadmium as Cd | APHA-23RD Edition-3111 -B (Pg No.3 -20 to 3-21) | mg/L | BDL | 0.003 | NR |
| 3. | Total Coli form count | IS : 15185:2016 | 1 CFU/100 ml | Absent | Shall not be detectable in any 100ml sample | - |
| 4. | Escherichia coli count | IS : 15185:2016 | 1 CFU/100 ml | Absent | Shall not be detectable in any 100ml sample | - |

Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-48
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6939 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004259F |

Results

| Sl. No | Parameters | Protocol | Unit | Gunda Village (GW6) | Standards as per IS: 10500:2012 | |
|--------|---------------------------------------|--|-------|---------------------|---------------------------------|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.24 | 6.5 to 8.5 | NR |
| 2. | Conductivity | APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58) | μS/cm | 2740 | - | - |
| 3. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 1644 | 500 | 2000 |
| 4. | Turbidity (NTU) | APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15) | NTU | 0.6 | 1 | 5 |
| 5. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | <1.0 | - | - |
| 6. | Sulphate as SO ₄ | APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200) | mg/L | 208.52 | 200 | 400 |
| 7. | Phosphorus as P | APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164) | mg/L | Nil | - | - |
| 8. | Sodium as Na | APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100) | mg/L | 368.6 | - | - |
| 9. | Potassium as K | APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90) | mg/L | 0.00 | - | - |
| 10. | Calcium as Ca | APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70) | mg/L | 90.75 | 75 | 200 |
| 11. | Magnesium as Mg | APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86) | mg/L | 222.34 | 30 | 100 |
| 12. | Total Hardness as CaCO ₃ | APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50) | mg/L | 599.76 | 200 | 600 |
| 13. | Chloride as Cl | APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76) | mg/L | 402.0 | 250 | 1000 |
| 14. | Fluoride as F | APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91) | mg/L | 0.86 | 1 | 1.5 |
| 15. | Nitrate Nitrogen as NO ₃ | APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132) | mg/L | 17.36 | 45 | NR |
| 16. | Total Alkalinity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-37 to 2-39) | mg/L | 531.65 | 200 | 600 |

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
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TC-5323

ANNEXURE-48

| | | | | | | |
|-----|------------------------------|--|------|-----------------|------|------|
| 17. | Acidity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-34 to 2-36) | mg/L | Nil | - | - |
| 18. | Total Iron as Fe | APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82) | mg/L | 0.14 | 0.30 | NR |
| 19. | Nickel as Ni | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.02 | 0.02 | NR |
| 20. | Manganese as Mn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.1 | 0.10 | 0.30 |
| 21. | Copper as Cu | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.05 | 1.50 |
| 22. | Zinc as Zn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <1.0 | 5 | 15 |
| 23. | Lead as Pb | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.01 | NR |
| 24. | Arsenic as As | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.01 | 0.01 | 0.05 |
| 25. | Chromium as Cr | APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72) | mg/L | <0.01 | 0.05 | NR |

Note: GW6: Gunda Village. NR-No relaxation.**INFERENCE****As per Standards IS: 10500:2012****Report Status: - Measured Values for the above parameters are within the limit.**

P. B. M.
Analysed By
Priyanka B M
Chemist

K. R. Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

**Note:**

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
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ANNEXURE-48
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical/Biological |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Ground Water |
| 9 | Sample Code | : 6939 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : GEMS/WATER/2024-2025/4259 |

Results

| Sl. No | Parameters | Protocol | Unit | Gunda Village (GW6) | Standards as per IS: 10500:2012 | |
|--------|------------------------|--|------------------|---------------------|---|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | Color | APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8) | Hazen | <5 | 5 | 15 |
| 2. | Cadmium as Cd | APHA-23RD Edition-3111 -B (Pg No.3 -20 to 3-21) | mg/L | BDL | 0.003 | NR |
| 3. | Total Coli form count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |
| 4. | Escherichia coli count | IS : 15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |

Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-49
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : RO Drinking Water |
| 9 | Sample Code | : 6940 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : ULR-TC532324000004260F |

Results

| Sl. No | Parameters | Protocol | Unit | RO Drinking Water | Standards as per IS: 10500:2012 | |
|--------|---------------------------------------|--|-------|-------------------|---------------------------------|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.86 | 6.5 to 8.5 | NR |
| 2. | Conductivity | APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58) | µS/cm | 220 | - | - |
| 3. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 132 | 500 | 2000 |
| 4. | Turbidity (NTU) | APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15) | NTU | 0 | 1 | 5 |
| 5. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | <1.0 | - | - |
| 6. | Sulphate as SO ₄ | APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200) | mg/L | 7.28 | 200 | 400 |
| 7. | Phosphorus as P | APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164) | mg/L | Nil | - | - |
| 8. | Sodium as Na | APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100) | mg/L | 25.05 | - | - |
| 9. | Potassium as K | APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90) | mg/L | 0.00 | - | - |
| 10. | Calcium as Ca | APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70) | mg/L | 14.71 | 75 | 200 |
| 11. | Magnesium as Mg | APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86) | mg/L | 8.50 | 30 | 100 |
| 12. | Total Hardness as CaCO ₃ | APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50) | mg/L | 51.0 | 200 | 600 |
| 13. | Chloride as Cl | APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76) | mg/L | 17.22 | 250 | 1000 |
| 14. | Fluoride as F | APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91) | mg/L | 0.08 | 1 | 1.5 |
| 15. | Nitrate Nitrogen as NO ₃ | APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132) | mg/L | 2.98 | 45 | NR |
| 16. | Total Alkalinity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-37 to 2-39) | mg/L | 71.61 | 200 | 600 |

Note:

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ANNEXURE-49

| | | | | | | |
|-----|------------------------------|--|------|--------|-------|------|
| 17. | Acidity as CaCO ₃ | APHA 23 rd Edition 2017 2320 B (Pg. No.2-34 to 2-36) | mg/L | Nil | - | - |
| 18. | Total Iron as Fe | APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82) | mg/L | 0.08 | 0.30 | NR |
| 19. | Nickel as Ni | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.02 | 0.02 | NR |
| 20. | Manganese as Mn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.1 | 0.10 | 0.30 |
| 21. | Copper as Cu | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.05 | 1.50 |
| 22. | Zinc as Zn | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 5 | 15 |
| 23. | Lead as Pb | APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method | mg/L | <0.01 | 0.01 | NR |
| 24. | Arsenic as As | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.01 | 0.01 | 0.05 |
| 25. | Chromium as Cr | APHA 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72) | mg/L | <0.01 | 0.05 | NR |
| 26. | Mercury as Hg | APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40) | mg/L | <0.001 | 0.001 | NR |

Note: W6: RO Drinking Water. NR-No relaxation. Ab-Absent.

INFERENCE

As per Standards IS: 10500:2012

Report Status: - Measured Values for the above parameters are within the limit.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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ANNEXURE-49
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Grab Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical/Biological |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : RO Drinking Water |
| 9 | Sample Code | : 6940 |
| 10 | Date of Sampling | : 04.01.2025 |
| 11 | Sample Received | : 04.01.2025 |
| 12 | Date of Analysis | : 04.01.2025 |
| 13 | Date of Analysis Completion | : 10.01.2025 |
| 14 | Report Issue Date | : 03.02.2025 |
| 15 | Report Number | : GEMS/RO/2024-2025/4260 |

Results

| Sl. No | Parameters | Protocol | Unit | RO Drinking Water | Standards as per IS: 10500:2012 | |
|--------|------------------------------|---|---------------|-------------------|---|--------------------|
| | | | | | Desirable Limits | Permissible Limits |
| 1. | colour | IS: 3025 (PART 4)- 1984, RA-2012 Platinum cobalt Method | Hazen | <5 | 5 | 15 |
| 2. | Odour | IS: 3025 (PART 5)- 1983, RA-2012, True Odour | - | Agreeable | Agreeable | Agreeable |
| 3. | Total Residual chlorine | IS:3025 (part 26)-1986, RA-2003, Iodometric method | mg/L | Nil | 0.2 | 1.0 |
| 4. | Oil & Grease | Clause 6 of IS 3025 (Part 39) Infrared | mg/L | Nil | 0.8 | No Relaxation |
| 5. | Cadmium as Cd | APHA-23RD Edition-3111 –B (Pg No.3 -20 to 3-21) | mg/L | BDL | 0.003 | NR |
| 6. | Selenium as Se | APHA 23 rd Edition 3114 B. Direct Air Acetylene Flame Method | mg/L | BDL | 0.01 | No Relaxation |
| 7. | Cyanides (as CN) | APHA 23 rd Edition 4500 CN (Pg. No.4-45 to 4-46) | mg/L | BDL | 0.05 | No Relaxation |
| 8. | Phenolic Compound as phenols | IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method | mg/L | BDL | 1.0 | - |
| 9. | Anionic detergents (as MBAS) | APHA 23 rd Edition 5540 C (Pg. No.5-55 to 5-57) | mg/L | BDL | 0.2 | 1.0 |
| 10. | Boron as B | APHA 23 rd Edition 2017 4500 B-B (p.no.4-25 to 4-26) | mg/L | BDL | 0.5 | 1.0 |
| 11. | Escherichia coli count | IS :15185:2016 | 1 CFU/ 100 ml | Absent | Shall not be detectable in any 100ml sample | - |

Note: Ab: Absent, NR: No Relaxation,

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-50
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Composite Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Sewage Treatment Plant (Outlet) |
| 9 | Date of Sampling | : 04.01.2025 |
| 10 | Sample Received | : 04.01.2025 |
| 11 | Date of Analysis | : 04.01.2025 |
| 12 | Date of Analysis Completion | : 10.01.2025 |
| 13 | Report Issue Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC532324000004268F |

| Sl. No. | Parameters | Protocol | Unit | Results | | | As per KSPCB Std |
|-------------|---|---|------|------------|--------------|--------------|------------------|
| | | | | STP 45 KLD | STP-1 90 KLD | STP-2 90 KLD | |
| Sample code | | | - | 6948 | 6949 | 6950 | |
| 1. | pH | APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.70 | 7.46 | 7.04 | 6.5 to 8.5 |
| 2. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | 11.0 | 13.0 | 9.0 | <20 |
| 3. | Biochemical Oxygen Demand as BOD (3 days at 27°C) | IS:3025 (part 44)-1993, Reaffirmed -2019 | mg/L | 2.0 | 6.0 | 4.0 | <10 |
| 4. | Chemical Oxygen Demand as COD | APHA 23 rd Edition 2017 5220 C (Pg. No.5-18 to 5-19) | mg/L | 38.72 | 12.09 | 19.36 | <50 |
| 5. | Oil & Grease | APHA 23rd Edition 2017 5520 B (Pg. No.5-41 to 5-42) | mg/L | 6.0 | 2.0 | 4.0 | 10 |

Note: BDL-Below detectable Limit. INFERENCE: The Measured values are within the Limit.

STP 45 KLD - Near Fortivia

STP-1 90 KLD -Near ISP Area

STP-2 90 KLD -Near Gunda Guest House

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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ANNEXURE-50
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Composite Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Sewage Treatment Plant (Outlet) |
| 9 | Date of Sampling | : 04.01.2025 |
| 10 | Sample Received | : 04.01.2025 |
| 11 | Date of Analysis | : 04.01.2025 |
| 12 | Date of Analysis Completion | : 10.01.2025 |
| 13 | Report Issue Date | : 03.02.2025 |
| 14 | Report Number | : GEMS/RO/2024-2025/4268 |

| Sl. No. | Parameters | Protocol | Unit | Results | | | As per KSPCB Std |
|---------|--|---|-----------|------------|--------------|--------------|------------------|
| | | | | STP 45 KLD | STP-1 90 KLD | STP-2 90 KLD | |
| | | Sample code | - | 6948 | 6949 | 6950 | |
| 1. | Color | APHA 23 RD Edition 2120 B (Pg. No.2-6 to 2-7) | Hazen | 5 | 5 | 5 | - |
| 2. | Odour | IS: 3025 (PART 5)- 1983, RA-2012, True Odour | - | Agree able | Agree able | Agree able | - |
| 3. | Cyanides (as CN) | APHA 23 RD Edition 4500 CN (Pg. No.4-45 to 4-46) | mg/L | BDL | BDL | BDL | - |
| 4. | Phenolic Compounds (as C ₆ H ₅ OH) | IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method | mg/L | BDL | BDL | BDL | - |
| 5. | Chromium (as Cr ⁶⁺) | APHA-23 RD Edition-3500 Cr B (Pg. No.3-71 to 3-72) | mg/L | <0.001 | <0.001 | <0.001 | - |
| 6. | Ammonical nitrogen as N | IS:3025 (part 34)-1988, RA-2023 | mg/L | 0.70 | 2.1 | 0.42 | 5 |
| 7. | Total Nitrogen as N | IS:3025 (part 34)-1988, RA-2023 | mg/L | 4.16 | 3.84 | 5.32 | 10 |
| 8. | Fecal coliform | APHA-23 RD Edition-9221 E (Pg. No.9-77 to 9-78) | CFU/100ml | 46 | 27 | 22 | Less than 100 |

Note: BDL-Below detectable Limit. INFERENCE: The Measured values are within the Limit.

STP 45 KLD – Near Fortivia

STP-1 90 KLD –Near ISP Area

STP-2 90 KLD –Near Gunda Guest House

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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TC-5323

ANNEXURE-51
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 - 450000125 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Composite Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Waste Water |
| 9 | Date of Sampling | : 04.01.2025 |
| 10 | Sample Received | : 04.01.2025 |
| 11 | Date of Analysis | : 04.01.2025 |
| 12 | Date of Analysis Completion | : 10.01.2025 |
| 13 | Report Issue Date | : 03.02.2025 |
| 14 | Report Number | : ULR-TC532324000004263F |

Results

| Sl. No. | Parameters | Protocol | Unit | Results | | As per KSPCB Std |
|---------|-------------------------------|--|-------------|--------------------------------------|--|------------------|
| | | | | Neutralization Pit 70 MW Power Plant | Neutralization Pit 2x70 MW Power Plant | |
| | | | Sample Code | 6943 | 6944 | |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 8.47 | 7.70 | 6.5 to 9.0 |
| 2. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | 12.0 | 13.0 | 100 |
| 3. | Chemical Oxygen Demand as COD | APHA 23 rd Edition 2017 5220 C (Pg. No.5-18 to 5-19) | mg/L | 38.72 | 58.08 | 250 |
| 4. | Oil & Grease | APHA 23 rd Edition 2017 5520 B (Pg. No.5-41 to 5-42) | mg/L | 4.0 | 6.0 | 10 |

Note: BDL-Below detectable Limit.

INFERENCE: The Measured values are within the Limit.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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ANNEXURE-52
GEMS-LD/TF/23/01

Analysis Report of Surface Water Quality Data

| | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/R018 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Composite Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Surface Water |
| 9 | Date of Sampling | : 04.01.2025 |
| 10 | Sample Received | : 04.01.2025 |
| 11 | Date of Analysis | : 04.01.2025 |
| 12 | Date of Analysis Completion | : 10.01.2025 |
| 13 | Report Issue Date | : 03.02.2025 |
| 14 | Report Number | : GEMS/SW/2024-2025/4263 |

| Sl. No. | Parameters | Protocol | Unit | Results | | IS 2296 - 1982 CLASS -B |
|---------|--|---|------------|-------------------------|---------------------------|-------------------------|
| | | | | Danayakanakere Upstream | Danayakanakere Downstream | |
| | | Sample code | | 6943 | 6944 | |
| 1. | pH | APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.46 | 7.28 | 6.5-8.5 |
| 2. | Biochemical Oxygen Demand as BOD (3 days at 27°C) | IS:3025 (part 44)-1993, Reaffirmed -2019 | mg/L | 0.00 | 0.00 | 3.0 |
| 3. | Fluorides as F | APHA 23 RD Edition 4500F D (Pg. No.4-90 to 4-91) | mg/L | 0.68 | 0.42 | 1.5 |
| 4. | Arsenic as As | APHA-23 RD Edition-3114 -B (Pg. No.3-36 to 3-40) | mg/L | <0.1 | <0.1 | 0.2 |
| 5. | Dissolved Oxygen | APHA 23 RD Edition 4500 C (Pg. No.4-146) | mg/L | 4.8 | 5.6 | >5.0 |
| 6. | Color | APHA 23 RD Edition 2120 B (Pg. No.2-6 to 2-7) | Hazen | 15 | 15 | 300 |
| 7. | Cyanides (as CN) | APHA 23 RD Edition 4500 CN (Pg. No.4-45 to 4-46) | mg/L | BDL | BDL | 0.05 |
| 8. | Phenolic Compounds (as C ₆ H ₅ OH) | IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method | mg/L | BDL | BDL | 0.005 |
| 9. | Chromium (as Cr ⁶⁺) | APHA-23 RD Edition-3500 Cr B (Pg. No.3-71 to 3-72) | mg/L | <0.001 | <0.001 | 1.0 |
| 10. | Anionic detergents (as MBAS) | APHA 23 RD Edition 5540 C (Pg. No.5-55 to 5-57) | mg/L | BDL | BDL | 1.0 |
| 11. | Total Coliform Organisms | | | | | |
| | Total Coli forms | IS : 1622:1981 | MPN/100 ml | Absent | Absent | 500 |
| | <i>Escherichia coli</i> or <i>E. coli</i> | IS : 1622:1981 | MPN/100 ml | Absent | Absent | - |

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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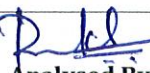
Website : www.globalmining.in

ANNEXURE-53
GEMS-LD/TF/23/01

Analysis Report of Surface Water Quality Data

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Composite Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical
- 7 Group : Pollution & Environment
- 8 Sample Type : **Surface Water**
- 9 Date of Sampling : 04.01.2025
- 10 Sample Received : 04.01.2025
- 11 Date of Analysis : 04.01.2025
- 12 Date of Analysis Completion : 10.01.2025
- 13 Report Issue Date : **03.02.2025**
14. Report Number : **GEMS/SW/2024-2025/4265**

| Sl. No. | Parameters | Protocol | Unit | Results | | IS 2296 - 1982 CLASS -B |
|---------|--|--|-------------|---------------------|-----------------------|-------------------------|
| | | | | KempuHalla Upstream | KempuHalla Downstream | |
| | | | Sample code | 6945 | 6946 | |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 8.14 | 7.88 | 6.5-8.5 |
| 2. | Biochemical Oxygen Demand as BOD (3 days at 27°C) | IS:3025 (part 44)-1993, Reaffirmed -2019 | mg/L | 3.0 | 5.0 | 3.0 |
| 3. | Fluorides as F | APHA 23 rd Edition 4500F-D (Pg. No.4-90 to 4-91) | mg/L | 0.92 | 1.02 | 1.5 |
| 4. | Arsenic as As | APHA-23 rd Edition-3114 -B (Pg. No.3 -36 to 3-40) | mg/L | <0.1 | <0.1 | 0.2 |
| 5. | Dissolved Oxygen | APHA 23 rd Edition 4500 C (Pg. No.4-146) | mg/L | 5.6 | 6.0 | >5.0 |
| 6. | Color | APHA 23 rd Edition 2120 B (Pg. No.2-6 to 2-7) | Hazen | 10 | 10 | 300 |
| 7. | Cyanides (as CN) | APHA 23 rd Edition 4500 CN- (Pg. No.4-45 to 4-46) | mg/L | BDL | BDL | 0.05 |
| 8. | Phenolic Compounds (as C ₆ H ₅ OH) | IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method | mg/L | BDL | BDL | 0.005 |
| 9. | Chromium (as Cr ⁶⁺) | APHA-23 rd Edition-3500 Cr B (Pg. No.3-71 to 3-72) | mg/L | <0.001 | <0.001 | 1.0 |
| 10. | Anionic detergents (as MBAS) | APHA 23 rd Edition 5540 C (Pg. No.5-55 to 5-57) | mg/L | BDL | BDL | 1.0 |
| 11. | Total Coliform Organisms, | | | | | |
| | Total Coli forms | IS : 1622:1981 | MPN/ 100 ml | Absent | Absent | 500 |
| | <i>Escherichia coli</i> or <i>E. coli</i> | IS : 1622:1981 | MPN/ 100 ml | Absent | Absent | - |


Analysed By
Priyanka B M
Chemist


Authorised Signatory
K. Ramakrishna Reddy
Technical Manager


- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

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ANNEXURE-54
GEMS-LD/TF/23/01

Analysis Report of Surface Water Quality Data

| | | |
|-----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Composite Sampling |
| 5 | Sampling Procedure | : GEMS-LD/SOP/32 |
| 6 | Discipline | : Chemical/Biological |
| 7 | Group | : Pollution & Environment |
| 8 | Sample Type | : Surface Water |
| 9 | Date of Sampling | : 04.01.2025 |
| 10 | Sample Received | : 04.01.2025 |
| 11 | Date of Analysis | : 04.01.2025 |
| 12 | Date of Analysis Completion | : 10.01.2025 |
| 13 | Report Issue Date | : 03.02.2025 |
| 14. | Report Number | : GEMS/SW/2024-2025/4267 |

| Sl. No. | Parameters | Protocol | Unit | Results | IS 2296 -1982 CLASS -B |
|---------|--|--|-------------|-----------------|------------------------|
| | | | | Tungabhadra dam | |
| | | | Sample Code | 6947 | |
| 1. | pH | APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99) | - | 7.32 | 6.5-8.5 |
| 2. | Biochemical Oxygen Demand as BOD (3 days at 27°C) | IS:3025 (part 44)-1993, Reaffirmed -2019 | mg/L | 5.0 | 3.0 |
| 3. | Fluorides as F | APHA 23 rd Edition 4500F D (Pg. No.4-90 to 4-91) | mg/L | 0.38 | 1.5 |
| 4. | Arsenic as As | APHA-23 rd Edition-3114 -B (Pg. No.3 -36 to 3-40) | mg/L | BDL | 0.2 |
| 5. | Dissolved Oxygen | APHA 23 rd Edition 4500 C (Pg. No.4-146) | mg/L | 5.2 | >5.0 |
| 6. | Color | APHA 23 rd Edition 2120 B (Pg. No.2-6 to 2-7) | Hazen | 5 | 300 |
| 7. | Cyanides (as CN) | APHA 23 rd Edition 4500 CN (Pg. No.4-45 to 4-46) | mg/L | BDL | 0.05 |
| 8. | Phenolic Compounds (as C ₆ H ₅ OH) | IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method | mg/L | BDL | 0.005 |
| 9. | Chromium (as Cr ⁶⁺) | APHA-23 rd Edition-3500 Cr B (Pg. No.3-71 to 3-72) | mg/L | BDL | 1.0 |
| 10. | Anionic detergents (as MBAS) | APHA 23 rd Edition 5540 C (Pg. No.5-55 to 5-57) | mg/L | BDL | 1.0 |
| 11. | Total Dissolved Solids | APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70) | mg/L | 156 | - |
| 12. | Total Suspended Solids | APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71) | mg/L | 8.0 | - |
| 13. | Total Coliform Organisms, | | | | |
| | Total Coli forms | IS:1622:1981 | MPN/100 ml | 21 | 500 |
| | Escherichia coli or E. coli | IS : 1622:1981 | MPN/100 ml | Absent | - |

Note: BDL-Below detectable Limit

INFERENCE: The measured values are within the Limit.

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