



BMM Ispat Ltd.,

ENVIRONMENTAL MONITORING REPORT



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

OCTOBER-2024

Prepared by



GLOBAL ENVIRONMENT & MINING SERVICES

NABL & MOEFCC Recognized Laboratory

(Consulting Engineers, Mine Designers, Geologists & Surveyors)

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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.

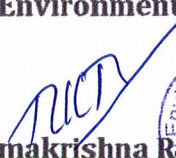
As part of the conditions and inherent concern on health of the employees and surroundings **M/s. BMM Ispat Ltd.**, as appointed **M/s. Global Environment & Mining Services**, Hosapete, to carry out the environmental pollution monitoring on AAQ Monitoring, Fugitive monitoring, Noise Monitoring, Water 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:04.11.2024


K. Ramakrishna Reddy
(Technical Manager)



1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The journey of the BMM Group is a reflection of the path tread by every entrepreneur who believes in the human potential and one's own ability to bring about a life affirming change that transcends time. BMM Group was born out of this committed belief of Late Shri. Udai chand Singhi.

Entrenched in the Indian ethos, with an astute understanding of market needs, values and sensibilities **Mr. Dinesh Kumar Singhi** inherited the legacy from his father and has built the BMM Group on sound fundamentals since 1998. He steered the company towards growth by being the first mining company to establish a power generation plant for captive use, and creating a steel plant from the captive ore mine. Over the last 12 years, BMM has been able to add value to every relationship under his able and dynamic leadership.

Today, BMM is a 4900 Crores Company due to its focus on market orientation and optimal usage of technology to achieve process efficiency and value addition. BMM has always believed in the principle of sharing and hence continues to transfer this benefit derived from sustained growth to its employees, partners and associates. The unique value proposition that defines the very fabric of the BMM culture is the firm's belief in unleashing this 'potential in tones' in terms of its human capital, continuous growth and consistent benefits to its stakeholders.

The human potential at BMM is reflected in the depth of domain expertise across diverse sectors and dynamism of youth at various levels in the Organization. Business operations lead by professionals with decades of market understanding and a dynamic team enables BMM to deliver superior product quality. This human potential keeps BMM attuned to scaling new heights and meeting customer expectations. While consistently adding value to its partners, BMM is sensitive to its responsibility towards the environment by implementing best practices in its Business Operations and contribution to society through various social Endeavors.

BMM has a commitment of being a good Corporate Citizen and is committed to achieving business goals through ethical means. BMM hence has been able to have deeper relevance to society by creating value that is inclusive and truly benefits all.



1.2 PROMOTERS OF THE PROJECT

BMM Group, one of the leading Steel, Power & Mining companies in India that has achieved the present level under the leadership and guidance of **Sri. Dinesh Kumar Singhi**, the Founder & Chairman of the group, is promoting the project. His vision is to globalize the company business and do value addition by operating responsibly and in a sustainable manner in exploring, exploiting, excavating and processing minerals followed by setting up steel plant facilities.

BMM is a step towards forward integration has set up new merchant Bar Mill. The works is located at:

BMM ISPAT LIMITED
(Registered Office & Works)
#114, Danapur
Hosapete - 583 222
Vijayanagara Dist., Karnataka
Phone +91 08394-264000, +91 9686550808/09
Fax - 08394 264010

1.3 Site Location

BMM ISPAT LIMITED is located at Danapur about 15 Kms away from Hosapete in Karnataka. The plant site can be connected by national highway, viz. NH-13. The plant is 1 km away from the NH-13 near Danapur village. The nearest railway station is Hospet; Bangalore is at a distance of 300 kms. Seaport is Belikere and Karwar, the nearest Airport is in the private sector belonging to JSW, a Jindal Group company at Thoranagallu (Vidyanagara).

M/s. BMM ISPAT Ltd., Has accorded Environmental Clearance for 2.0 MTPA Integrated Steel Plant, with the following facilities.

S.N.	Items	Capacity
1	Iron ore beneficiation plant	4.70 MTPA
2	Palletizing Plant	2.40 MTPA
3	DRI Plant	0.70 MTPA
4	Coke Oven	0.80 MTPA
5	Sinter Plant	2.50 MTPA
6	Blast furnace	1.70 MTPA
7	EAF & BOF Steel making shop	2.30 MTPA
8	Continuous casting machines Slab Caster Billet Caster	1.10 MTPA 1.10 MTPA
9	Rolling mills: Hot strip mill Structural/wire rods	1.00 MTPA 1.00 MTPA
10	Oxygen Plant	2x500 TPD
11	Calcining	1,080 TPD
12	Cement Plant	1.40 MTPA
13	Power Plant	230 MW
14	Sponge Iron Division -1	2 x 100 TPD
15	Induction furnace (billets)	9000 tonnes/month
16	Rolling Mill (TMT rods)	9000 tonnes/month
17	Captive Power Plant	25 MW

Out of the above units, presently **4 x 500 TPD Sponge Iron Plants** and **1X70 MW Thermal Power Plants** have been commissioned on August 2011. Beneficiation plant-2, Pellet Plant-2 are commissioned on March 2012. 2X70 MW Thermal based power plants have commissioned on Jan 2013, EAF, Steel Making Shop, CCM, Rolling Mill, Oxygen plants are commissioned on August 2015. Remaining units are under various stages of implementation.

Hence environmental pollution monitoring is being carried out for 4 x 500 TPD sponge iron plants, 1X70 MW Thermal Power Plant, 1.3MTPA Beneficiation, 1.2MTPA Pellet Plant, 2X70MW Power plant, SMS, and RML.

1.4 The report includes environmental monitoring data collected at above site for the month of **OCTOBER-2024**. The Parameters monitored are:

- ❖ Ambient Air Quality
- ❖ Fugitive Dust Level
- ❖ Stack Emission
- ❖ Ambient Noise Level
- ❖ Water Quality

2.0 SCOPE AND METHODOLOGY

2.1 PREAMBLE

The scope of the study and the present report covers the detailed characterization of the existing environmental status in and around the plant area for major environmental components viz. Ambient & work zone air quality, Fugitive Emission, Noise level and water quality & Stack Emission.

2.2 AMBIENT AIR QUALITY

To assess the ambient air quality status, monitoring stations were identified 6 Location plant site. Work zone air monitoring stations were identified in the major work spots. Based on the production activities the parameters chosen for ambient air quality. Were Particulate Matter PM10, Particulate Matter (size less than 2.5µm) PM2.5.

2.2.1 PARTICULATE MATTER (PM10)(size less than 10µm).

Purpose

The purpose of this protocol is to provide guidelines for monitoring and analysis of Particulate Matter PM10 in ambient air

Reference Method: IS 5182 Part 23 Method of Measurement of Air Pollution: Respirable Suspended Particulate Matter (PM10) cyclonic flow technique.

Principle of the method

Air is drawn through a size-selective inlet and through a 20.3 X 25.4 cm (8 X 10 in) filter at a flow rate, which is typically 1132 L/min. Particles with aerodynamic diameter less than the cut-point of the inlet are collected, by the filter. The mass of these particles is determined by the difference in filter weights prior to and after sampling. The concentration of PM10 in the designated size range is calculated by dividing the weight gain of the filter by the volume of air sampled.

Sampling

Field Sampling - Tilt back the inlet and secure it according to manufacturer's instructions. Loosen the faceplate wing nuts and remove the faceplate. Remove the filter from its jacket and centre it on the support screen with the rough side of the filter facing upwards. Replace the faceplate and tighten the wing nuts to secure the rubber gasket against the filter edge. Gently lower the inlet. For automatically flow-

controlled units, record the designated flow rate on the data sheet. Record the reading of the elapsed time meter. The specified length of sampling is commonly 8 hours or 24 hours. During this period, several reading (hourly) of flow rate should be taken. After the required time of sampling, record the flow meter reading, take out the filter media from the sampler, and put in a container or envelope.

Analysis

Filter inspection: Inspect the filter for pin holes using a light table. Loose particles should be removed with a soft brush. Apply the filter identification number or a code to the filter if it is not a numbered. Condition the filter in conditioning room maintained within 20-30° C and 40-50% relative humidity or in an airtight desiccator for 24 hours. Take initial weight of the filter paper (Wi) before sampling. Condition the filter after sampling in conditioning room maintained within 20-30° C and 40-50% relative humidity or in an airtight desiccator for 24 hours. Take final weight of the filter paper (Wf).

2.2.2 Particulate Matter (PM_{2.5})(size less than 2.5µm)

Purpose

The purpose of this protocol is to provide guidelines for monitoring and analysis of Particulate Matter PM_{2.5} in ambient air.

Reference Method: USEPA 2001 Method of Measurement of Air Pollution:

Particulate Matter (PM_{2.5}) cyclonic flow technique.

Principle

An electrically powered air sampler draws ambient air at a constant volumetric flow rate (16.7 lpm) maintained by a mass flow / volumetric flow controller coupled to a microprocessor into specially designed inertial particle-size separator (i.e. cyclones or impactors) where the suspended particulate matter in the PM_{2.5} size ranges is separated for collection on a 47 mm polytetrafluoroethylene (PTFE) filter over a specified sampling period. Each filter is weighed before and after sample collection to determine the net gain due to the particulate matter. The mass concentration in the ambient air is computed as the total mass of collected particles in the PM_{2.5} size ranges divided by the actual volume of air sampled, and is expressed in µg/m³. The microprocessor reads averages and stores five-minute averages of ambient temperature, ambient pressure, filter temperature and volumetric flow rate. In

addition, the microprocessor calculates the average temperatures and pressure, total volumetric flow for the entire sample run time and the coefficient of variation of the flow rate.

2.2.3 Sulphur Dioxide (SO₂)

Purpose: The purpose of this protocol is to provide guidelines for monitoring and analysis of sulphur dioxide in ambient air.

Reference Method: Modified West & Gaeke Method (IS 5182 Part 2 Method of Measurement of Air Pollution: Sulphur dioxide).

Sulphur dioxide from air is absorbed in a solution of potassium tetra chloromercurate (TCM). A dichlorosulphitomercurate complex, which resists oxidation by the oxygen in the air, is formed. Once formed, this complex is stable to strong oxidants such as ozone and oxides of nitrogen and therefore, the absorber solution may be stored for some time prior to analysis. The complex is made to react with para-rosaniline and formaldehyde to form the intensely coloured pararosaniline methyl sulphonic acid. The absorbance of the solution is measured by means of a suitable spectrophotometer.

Sampling

Place 30 ml of absorbing solution in an impinger and sample for four hours at the flow rate of 1 L/min. After sampling measure the volume of sample and transfer to a sample storage bottle.

Analysis

Replace any water lost by evaporation during sampling by adding distilled water up to the calibration mark on the absorber. Mix thoroughly, pipette out 10 ml of the collected sample into a 25 ml volumetric flask. Add 1 ml 0.6% sulphamic acid and allow reacting for 10 minutes to destroy the nitrite resulting from oxides of nitrogen. Add 2 ml of 0.2% formaldehyde solution and 2 ml pararosaniline solution and make up to 25 ml with distilled water. Prepare a blank in the same manner using 10 ml of unexposed absorbing reagent. After a 30 min colour development interval and before 60 minutes, measure and record the absorbance of samples and reagent blank at 560 nm. Use distilled water; not the reagent blank, as the optical reference.

2.2.4 Nitrogen Di Oxide (NO₂):**Purpose**

The purpose of this protocol is to provide guidelines for monitoring of nitrogen dioxide in ambient.

Principle of the method

Modified Jacobs &Hochheiser Method (IS 5182 Part 6 Methods for Measurement of Air Pollution: Oxides of nitrogen)

Ambient nitrogen dioxide (NO₂) is collected by bubbling air through a solution of sodium hydroxide and sodium arsenite. The concentration of nitrite ion (NO₂) produced during sampling is determined calorimetrically by reacting the nitrite ion with phosphoric acid, sulfanilamide, and N-(1-naphthyl)- ethylenediamine dihydrochloride (NEDA) and measuring the absorbance of the highly coloured azo-dye at 540 nm.

2.2.5 Ozone (Chemical method)**Purpose**

The purpose of this protocol is to provide guidelines for monitoring of ozone in ambient air.

Principle of the method

Micro-amounts of ozone and the oxidants liberate iodine when absorbed in a 1% solution of potassium iodine buffered at pH 6.8 + 0.2. The iodine is determined spectrophotometrically by measuring the absorption of tri-iodide ion at 352 nm.

Sampling

Place 10 ml of absorbing solution in a standard impinger and sample for one hour at the flow rate of 1 L/min. Do not expose the absorbing reagent to direct sunlight. After sampling measure the volume of sample and transfer to a sample storage bottle.

Analysis

If, appreciable evaporation of the absorbing solution occurs during sampling, add water to bring the liquid volume to 10 ml. Within 30 to 60 minutes after sample collection, read the absorbance in a cuvette at 352 nm against a reference cuvette containing distilled water. Measure the absorbance of the unexposed reagent and subtract the value from the absorbance of the sample.

2.2.6 Ammonia(NH₃)**Purpose**

The purpose of this protocol is to provide guidelines for monitoring of ammonia in ambient air.

Principle of the method

Indophenol method Ammonia in the atmosphere is collected by bubbling a measured volume of air through a dilute solution of sulphuric acid to form ammonium sulphate. The ammonium sulphate formed in the sample is analysed calorimetrically by reaction with phenol and alkaline sodium hypochlorite to produce indophenol. The reaction is accelerated by the addition of Sodium Nitroprusside as catalyst.

Sampling

Place 10 ml of absorbing solution in an impinger and sample for one hour at the flow rate of 1 to 2 L/min. After sampling measure the volume of sample and transfer to a sample storage bottle

Analysis

Transfer contents of the sample bottle to a 25 ml glass stopper graduated cylinder. Maintain all the solutions and sample at 25° C. Add 2 ml buffer. Add 5 ml of working phenol solution, mix, and fill to about 22 ml. Add 2.5 ml of working hypochlorite solution and rapidly mix. Dilute to 25 ml, mix and store in the dark for 30 minutes to develop colour. Measure the absorbance of the solution at 630 nm on a spectrophotometer using 1 cm cells. Prepare a reagent blank and field blank and measure the absorbance as done in the analysis of samples.

2.2.7 Benzo(a)Pyrene**Purpose**

The purpose of this protocol is to provide guidelines for monitoring of Benzo (a) Pyrene (BaP) in ambient air.

Principle of the Method

It is based on BIS method IS 5182 (Part 12):2004 and USEPA method (TO-13). This method is designed to collect particulate phase PAHs in ambient air and fugitive emissions and to determine individual PAH compounds using capillary gas chromatograph equipped with flame ionization detector. It is a high volume

(1.2m³/min) sampling method capable of detecting sub.ng/m³ concentration of PAH in 24 hours sample (i.e., collected in 3 shifts of 8 hour each with 480 m³ sampling volume of air).

Sampling

24 hr. sampling using PM10 high volume sampler with 8 hourly samples using EPM 2000 glass fibre or equivalent filter.

Sample Processing

Extraction: Filter papers (half of all the filters papers collected in a day) are cut into strips using scissors and transfer to 250 ml beaker. Add ~50 ml. of Toluene (GC/HPLC grade). These samples are extracted with toluene using ultra sonic bath for about 30 minutes. Repeat the procedure twice (50ml x 2 times) for complete extraction. Alternatively, sample can be extracted using soxhlet extraction apparatus for about 8 hr. with Toluene and repeat it twice.

Filtration

Filter the extracted samples with Whatman filter paper no.41 containing 2 gm of Anhydrous Sodium Sulphate (to remove moisture).

Sample injection

Take 2µl of sample from the amber vial using standard gas tight syringe and inject in the Capillary GC-FID instrument for analysis. Record the resulting concentration of each PAH compound including B(a)P. A 10ng/µl concentration B(a)P or other PAH standards are to be injected in GC/FID instrument with every batch of samples. As a control Internal Standard of 10 ng/µl conc. is added to each sample prior to the analysis in case of internal calibration is used.

2.2.8 Benzene

Samples collected through active sampling (sorbent tubes) are extracted or desorbed by conventional solvent (generally 1-5 ml of carbon disulphide) using ultrasonication for 15 min to remove analyte from the sorbent material. Desorbed samples are analyzed using gas chromatograph (GC) fitted with capillary column and flame ionization detector (FID). A single tube may provide enough samples to permit several analyses.

Principle of the Method

IS 5182 (Part 11): 2006, the charcoal tubes are available in different sizes and contain varying amount of activated charcoal. The ambient air is sucked through the tube using a low flow sampler used for collection of BTX sample in a way that results in an enrichment of the relevant substances in the activated charcoal. Desorption of the adsorbed benzene is done using carbon disulphide (CS₂). The substances desorbed in the CS₂ are analyzed by capillary gas chromatography. A flame ionization detector (FID) is used for analysis while quantification is performed using the internal/external standard.

Gas Chromatograph

Any suitable gas chromatograph with flame ionization detector (FID) with fused silica capillary columns having a length of 25 m or more, an internal diameter of 320 μ m or below and with a stationary phase film thickness less than 1.5 μ m as follows or equivalent may be recommended.

Sampling

Selection of Sorbent Tube - Samples are collected in glass sampling tube filled with an activated charcoal (coconut shell), Chromo sorb 106 or other suitable adsorbent.

Analytical Procedure

Samples collected through active sampling (sorbent tubes) are extracted or desorbed by conventional solvent (generally 1-5 ml of carbon disulphide) using ultrasonication for 15 min to remove analyte from the sorbent material. Desorbed samples are analysed using gas chromatograph (GC) fitted with capillary column and flame ionization detector (FID). A single tube may provide enough samples to permit several analyses.

2.2.9 Carbon Monoxide (CO)**Principle:**

Samples containing carbon monoxide in the range of 0 to 100 mg/l are analysed on a non-dispersive infrared absorption gas analyser, namely, an electro-optical spectrophotometer with no spectral dispersion component. It may consist of a single or double source of infrared energy and one or more infrared detectors separated by an optical cell or cells through one or more of which the sample flows, whereby the specific spectral absorption of the component of interest is determined.

Non dispersive Infrared (NDIR) Gas Analyser

The apparatus shall be constructed so as to be suitable for operating within the temperature range of 15°C to 40°C and in a relative humidity range of 0 to 90 percent. The apparatus shall embody facilities for the analysis of continuously applied sample or a discrete sample of volume of 2.0 litres. In the later case the purification train shall be of such a design and dead volume that 2.0 litres is adequate for its proper flushing out. The apparatus shall include facilities for the visual inspection of results and also for their recording. The scale shall be divided into steps of 1.0 percent full scale division (fsd).

Though the basic instrument recommended is for (0 to 100) mg/l range, for samples of higher mg/l range the instrument may be used with proper dilution and conditioning of the samples.

2.2.10 Lead (Pb), Nickel (Ni) & Arsenic (As)**Purpose**

The purpose of this protocol is to provide guidelines for monitoring of Lead (Pb), Nickel (Ni) & Arsenic (As) in ambient air.

Principle of the method

The Atomic Absorption Spectroscopy (AAS) technique makes use of absorption spectrometry to assess the concentration of an analyte in the sample. The method is based on active sampling using PM10 Respirable Dust Sampler and then sample analysis is done by atomic absorption spectrophotometer.

Sampling procedure

Tilt back the inlet and secure it according to manufacturer's instructions. Loosen the face-plate wing-nuts and remove the face plate. Remove the filter from its jacket and centre it on the support screen with the rough side of the filter facing upwards. Replace the face-plate and tighten the wing-nuts to secure the rubber gasket against the filter edge. Gently lower the inlet. For automatically flow-controlled units, record the designated flow rate on the data sheet. Record the reading of the elapsed time meter. The specified length of sampling is commonly 8 hours or 24 hours. During this period, several reading (hourly) of flow rate should be taken. After the required time of sampling, record the flow meter reading and take out the filter media from the sampler and put in a container or envelope.

3.0 Fugitive Emission Monitoring

Fugitive air quality was monitored 40 samples were collected from the analyzed for SPM analyzed by gravimetric method. Work Zone Air quality was monitored at all Plant area and material handling area.

4.0 Stack Monitoring

Stack Monitoring was Collected from Vayubodhan Stack sampler VSS1 stack monitoring was used for drawing the flue gas. Sulphur dioxide and oxides of Nitrogen in the flue gas was sampled by bubbling flue gas solution respectively and the analyses of the pollutants were done as per the Indian Standard procedures prescribed by CPCB/BIS. Stack Emission level was monitored as per the statutory requirement on twice in a month.

4.1 Stack Emissions Monitoring Methodology

Sampling Procedure

Pre-Sampling Activities

Weigh the properly conditioned thimble/filter and place it into the clean, air tight Container. Designate appropriate label or ID No. to each thimble/filter container. Particulate matter emission of "Stack Monitoring – Material and Methodology for is kinetic Sampling.

Field activity starts with the collection of detailed information from the industry about the products, raw materials, fuels, and stack dimensions.

4.2 Traverse Point Calculation

Calculate the traverse point and accordingly mark the distance from tip of the Nozzle, on Pitot tube and probe. Do not forget to add the collar length of port to the calculated traverses. For detailed calculation of "Stack Monitoring– Material and Methodology for isokinetic sampling.

4.3 Determination of Dust Concentration

Determine the mass of dust collected in the thimble by difference i.e., weighing the thimble before and after the run. Dry the thimble in an oven for about 2 hours at 120°C prior to sampling. After sampling, cool, dry and again weigh the thimble along with dust maintaining the same condition as prior to sampling.

DATA ANALYSIS**4.4 BUFFERZONE AMBIENT AIR QUALITY STATUS****Danapur Village (A1)**

At this location, average of PM10, PM2.5, SO2, NO2 values Average 60.60, 18.50, 9.01 & 10.49 µg/m³ respectively. All above the values were found within the Limits. And the results given in **Annexure-1**.

Mariyammanahalli Village (A2)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 66.46, 17.21, 8.73 & 10.22 µg/m³ respectively. All above the values were found within the Limits. And the results given in **Annexure-2**.

Hanumanahalli Village (A3)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 56.37, 15.98, 8.37 & 9.93 µg/m³ respectively. All above the values were found within the Limits. Results given in **Annexure-3**.

Galemmanagudi Village (A4)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 53.04, 16.33, 8.50 & 9.88 µg/m³ respectively. All above the values were found within the Limits. Results given in **Annexure-4**.

G Nagalapura Village (A5)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 50.05, 15.31, 7.96 & 9.59 µg/m³ respectively. All above the values were found within the Limits. Results given in **Annexure-5**.

Gunda Tanda Village (A6)

At this location, average of PM10, PM2.5, SO2, NO2 values Average 49.45, 14.14, 8.25 & 9.72 µg/m³ respectively. All above the values were found within the Limits. Results given in **Annexure-6**.

5.1 FUGITIVE DUST CONCENTRATION

Fortnightly fugitive air quality was monitored all plant area SPM value minimum 137.97 $\mu\text{g}/\text{m}^3$, maximum value 1875.96 $\mu\text{g}/\text{m}^3$ and average value 759.71 $\mu\text{g}/\text{m}^3$. The Fugitive air quality 1st & 2nd Fortnight Results given in **Annexure-7 to Annexure-10**.

5.2 STACK MONITORING

Stack emission level was monitored all chimneys' PM values (mg/Nm^3) 1st and 2ndFortnight Minimum Value 6.25 mg/Nm^3 , Maximum Value 36.41 mg/Nm^3 & Average Value 26.51 mg/Nm^3 . 1st & 2nd Fortnight Results are given in **Annexure-11 to Annexure-37**.

5.3 NOISE LEVEL MEASUREMENT

Noise level was recorded at 30 locations each in Ambient and work zone area using Sound Level Meter (Equinox-EQ 107 Instrument / Lutron) The Day time noise level values were ranging between 42.6 to 73.0 dB (A). The noise level status is given in **Annexure-38 to Annexure-39**.

5.4 Water Sample Collected at 17 locations in side plant and surrounding nearest villages and nearest surface water Sample Collected every Month. The Water Analysis Test Report is given in **Annexure-41 to Annexure-52**.

5.5 CONCLUSION

All the monitored Environmental parameters were found to be well within the statutory norms and the same are enclosed as follows.



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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/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 : **OCTOBER-2024**
Location : **A1-Danapur Village**
Duration of Monitoring : 24 Hour
Report Issued Date : **04.11.2024**
Report Number : **ULR-TC532324000002606F**

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
03.10.2024	04.10.2024	4272	60.60	100	19.30	60	9.74	80	11.03	80
04.10.2024	05.10.2024	4323	39.58		10.02		6.84		8.87	
09.10.2024	10.10.2024	4495	77.11		26.13		10.19		11.65	
10.10.2024	11.10.2024	4541	38.45		10.19		6.92		8.10	
14.10.2024	15.10.2024	4625	75.21		26.07		10.30		11.67	
15.10.2024	16.10.2024	4638	68.79		17.93		9.49		10.90	
21.10.2024	22.10.2024	4761	56.91		15.23		8.42		10.49	
22.10.2024	23.10.2024	4794	68.18		23.14		10.13		11.24	
Average			60.60		18.50		9.01		10.49	

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

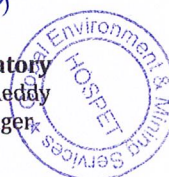
INFERENCE

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 DGPS 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 : OCTOBER-2024
Location : A1-Danapur Village
Duration of Monitoring : 1 Hour
Report Issued Date : 04.11.2024
Report Number : GEMS/BMM/NAAQ/2024-25/2606

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	03.10.2024	4272	0.12	4.0
2	04.10.2024	4323	0.10	
3	09.10.2024	4495	0.16	
4	10.10.2024	4541	0.10	
5	14.10.2024	4625	<0.01	
6	15.10.2024	4638	<0.01	
7	21.10.2024	4761	0.12	
8	22.10.2024	4794	<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

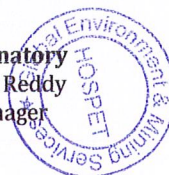
INFERENCE

As per NAAQMS Standards (2009),

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

Analyzed By
Priyanka B M
Chemist

Authorized 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-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 : OCTOBER-2024
Location : A2-Mariyammanahalli Village
Duration of Monitoring : 24 Hour
Report Issued Date : 04.11.2024
Report Number : ULR-TC532324000002573F

RESULTS

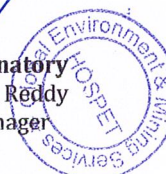
Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS :5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
01.10.2024	02.10.2024	4231	72.94	100	20.01	60	9.50	80	10.46	80
02.10.2024	03.10.2024	4243	75.02		18.85		10.10		11.70	
07.10.2024	08.10.2024	4419	69.85		20.53		8.39		10.07	
08.10.2024	09.10.2024	4465	71.86		19.35		9.32		11.12	
17.10.2024	18.10.2024	4690	66.08		14.26		8.90		10.21	
18.10.2024	19.10.2024	4715	59.10		12.88		8.08		9.58	
24.10.2024	25.10.2024	4856	52.67		13.91		7.15		8.84	
25.10.2024	26.10.2024	4880	64.15		17.85		8.43		9.82	
Average			66.46		17.21		8.73		10.22	

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.

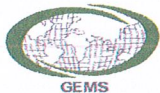
Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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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- 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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- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GEMS



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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	: OCTOBER-2024
Location	: A2-Mariyammanahalli Village
Duration of Monitoring	: 1 Hour
Report Issued Date	: 04.11.2024
Report Number	: GEMS/BMM/NAAQ/2024-25/2573

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	01.10.2024	4231	0.16	4.0
2	02.10.2024	4243	0.12	
3	07.10.2024	4419	0.10	
4	08.10.2024	4465	0.16	
5	17.10.2024	4690	0.18	
6	18.10.2024	4715	0.12	
7	24.10.2024	4856	0.16	
8	25.10.2024	4880	0.10	

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

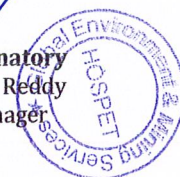
INFERENCE

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-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 - 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	: OCTOBER-2024
Location	: A3-Hanumanahalli Village
Duration of Monitoring	: 24 Hour
Report Issued Date	: 04.11.2024
Report Number	: ULR-TC532324000002607F

RESULTS

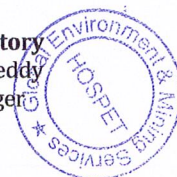
Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS:5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
03.10.2024	04.10.2024	4273	59.92	100	17.47	60	8.05	80	10.06	80
04.10.2024	05.10.2024	4324	37.73		11.09		6.98		9.75	
09.10.2024	10.10.2024	4496	68.95		21.40		9.40		10.18	
10.10.2024	11.10.2024	4542	37.98		10.88		6.68		8.71	
14.10.2024	15.10.2024	4626	67.69		20.98		9.47		10.20	
15.10.2024	16.10.2024	4639	60.32		15.13		8.72		10.10	
24.10.2024	25.10.2024	4857	56.54		12.69		7.88		9.34	
25.10.2024	26.10.2024	4881	61.84		18.19		9.75		11.07	
Average			56.37		15.98		8.37		9.93	

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



Note:

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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 : OCTOBER-2024
Location : A3-Hanumanahalli Village
Duration of Monitoring : 1 Hour
Report Issued Date : 04.11.2024
Report Number : GEMS/BMM/NAAQ/2024-25/2607

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	03.10.2024	4273	0.16	4.0
2	04.10.2024	4324	0.18	
3	09.10.2024	4496	0.12	
4	10.10.2024	4542	0.16	
5	14.10.2024	4626	0.10	
6	15.10.2024	4639	0.12	
7	24.10.2024	4857	0.10	
8	25.10.2024	4881	0.16	

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-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 : OCTOBER-2024
Location : A4-Galemmanagudi Village
Duration of Monitoring : 24 Hour
Report Issue Date : 04.11.2024
Report Number : ULR-TC532324000002608F

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
03.10.2024	04.10.2024	4274	57.68	100	18.58	60	8.92	80	9.91	80
04.10.2024	05.10.2024	4325	35.61		10.79		6.98		8.53	
09.10.2024	10.10.2024	4497	65.74		21.10		10.02		11.78	
10.10.2024	11.10.2024	4543	38.38		11.14		6.82		8.41	
14.10.2024	15.10.2024	4627	64.92		20.41		10.02		11.55	
15.10.2024	16.10.2024	4640	46.31		17.52		7.86		8.92	
21.10.2024	22.10.2024	4762	56.16		15.83		8.32		9.89	
22.10.2024	23.10.2024	4795	59.55		15.29		9.04		10.07	
Average			53.04		16.33		8.50		9.88	

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
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.
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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/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 : OCTOBER-2024
 Location : A4-Galemmanagudi Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 04.11.2024
 Report Number : GEMS/BMM/NAAQ/2024-25/2608

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	03.10.2024	4274	0.18	4.0
2	04.10.2024	4325	0.12	
3	09.10.2024	4497	0.14	
4	10.10.2024	4543	0.10	
5	14.10.2024	4627	0.16	
6	15.10.2024	4640	0.18	
7	21.10.2024	4762	0.20	
8	22.10.2024	4795	0.10	


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 : OCTOBER-2024
Location : A5-G Nagalapura Village
Duration of Monitoring : 24 Hour
Report Issue Date : 04.11.2024
Report Number : ULR-TC532324000002609F

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
03.10.2024	04.10.2024	4275	54.59	100	18.90	60	8.87	80	10.09	80
04.10.2024	05.10.2024	4326	33.22		10.70		6.08		8.82	
09.10.2024	10.10.2024	4498	61.42		20.10		9.09		10.14	
10.10.2024	11.10.2024	4544	34.51		10.84		6.46		7.85	
14.10.2024	15.10.2024	4628	60.70		20.89		9.26		10.82	
15.10.2024	16.10.2024	4641	55.41		14.76		8.48		9.79	
21.10.2024	22.10.2024	4763	49.35		12.37		7.33		9.06	
22.10.2024	23.10.2024	4796	51.24		13.89		8.09		10.18	
Average			50.05		15.31		7.96		9.59	

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
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 15 Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
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Website: www.globalmining.in

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 : OCTOBER-2024
 Location : A5- G Nagalapura Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 04.11.2024
 Report Number : GEMS/BMM/NAAQ/2024-25/2609

RESULTS

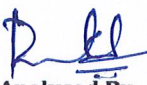
Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	03.10.2024	4275	0.14	4.0
2	04.10.2024	4326	0.10	
3	09.10.2024	4498	0.12	
4	10.10.2024	4544	<0.01	
5	14.10.2024	4628	0.10	
6	15.10.2024	4641	0.12	
7	21.10.2024	4763	<0.01	
8	22.10.2024	4796	<0.01	


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

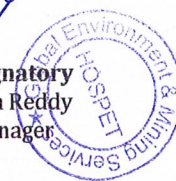
ND - Not Detected

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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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/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 : OCTOBER-2024
Location : A6-Gunda Tanda Village
Duration of Monitoring : 24 Hour
Report Issue Date : 04.11.2024
Report Number : ULR-TC532324000002573F

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
01.10.2024	02.10.2024	4230	60.48	100	18.45	60	9.35	80	11.01	80
02.10.2024	03.10.2024	4244	58.21		17.23		8.46		10.21	
07.10.2024	08.10.2024	4420	60.93		18.89		10.12		11.73	
08.10.2024	09.10.2024	4466	59.59		17.07		9.02		10.34	
17.10.2024	18.10.2024	4691	47.39		12.20		8.01		9.57	
18.10.2024	19.10.2024	4717	39.16		9.30		7.47		8.46	
21.10.2024	22.10.2024	4764	31.74		10.05		6.49		7.91	
22.10.2024	23.10.2024	4797	38.08		9.92		7.10		8.55	
Average			49.45		14.14		8.25		9.72	

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.

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 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-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 : OCTOBER-2024
Location : A6-Gunda Tanda Village
Duration of Monitoring : 1 Hour
Report Issued Date : 04.11.2024
Report Number : GEMS/BMM/NAAQ/2024-25/2573

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	01.10.2024	4230	<0.01	4.0
2	02.10.2024	4244	<0.01	
3	07.10.2024	4420	<0.01	
4	08.10.2024	4466	<0.01	
5	17.10.2024	4691	<0.01	
6	18.10.2024	4717	<0.01	
7	21.10.2024	4764	<0.01	
8	22.10.2024	4797	<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).

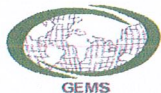
Report Status: - Measured Values for the above parameters are within the limit

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/R018
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	: OCTOBER-2024(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	: 04.11.2024
10	Report Number	: GEMS/BMM/FM/2024-25/2734

RESULTS

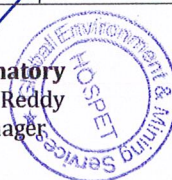
Sl. No.	Location / Plant	Sample Code	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-1						
1.	Main Canteen	4460	08.10.2024	09.10.2024	541.81	2000
2.	Near Iron Ore Bottom Hopper	4458	08.10.2024	09.10.2024	321.76	2000
3.	Iron Ore Screen	4459	08.10.2024	09.10.2024	745.18	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	4486	09.10.2024	10.10.2024	1180.69	2000
5.	Annual Cooler Pellet Discharge bin	4487	09.10.2024	10.10.2024	1127.65	2000
6.	Pellet Stock Yard	4488	09.10.2024	10.10.2024	667.14	2000
III. Sponge Iron Division-1 (kiln 1 & 2)						
7.	Control Room SID-1	4617	14.10.2024	15.10.2024	471.48	2000
8.	Near Product bin	4618	14.10.2024	15.10.2024	1866.39	2000
9.	Coal Feeding Area	4619	14.10.2024	15.10.2024	328.50	2000
IV. Induction Furnace & Rolling Mill – 1						
10.	IF Office	4534	10.10.2024	11.10.2024	614.27	2000
11.	TMT Stock Yard	4535	10.10.2024	11.10.2024	456.78	2000
12.	RML Gasifier	4536	10.10.2024	11.10.2024	328.50	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	4537	10.10.2024	11.10.2024	554.70	2000
14.	25 MW ACC	4621	14.10.2024	15.10.2024	401.13	2000
VI. Site Services						
15.	PGP- coal handling system	4489	09.10.2024	10.10.2024	473.18	2000
16.	IF Slag Crusher	4620	14.10.2024	15.10.2024	728.91	2000
17.	Main Gate	4637	15.10.2024	16.10.2024	302.21	2000
18.	Fly ash Dump	4412	07.10.2024	08.10.2024	446.94	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 Instruments/EI-043	Enviro Instruments/EI-043	Enviro Instruments/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

Analysed By
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Chemist

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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/R018
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	:	OCTOBER-2024(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	:	04.11.2024
10	Report Number	:	GEMS/BMM/FM/2024-25/2446

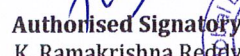
RESULTS

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	4036	24.10.2024	25.10.2024	1072.47	2000
2.	Near Iron Ore Bottom Hopper	4035	24.10.2024	25.10.2024	379.11	2000
3.	Iron Ore Screen	4034	24.10.2024	25.10.2024	1611.01	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	4076	24.10.2024	25.10.2024	1875.96	2000
5.	Annual Cooler Pellet Discharge bin	4077	24.10.2024	25.10.2024	1350.0	2000
6.	Pellet Stock Yard	4078	25.10.2024	26.10.2024	1751.27	2000
III. Sponge Iron Division-1(kiln 1 & 2)						
7.	Control Room SID-I	4168	26.10.2024	27.10.2024	1738.87	2000
8.	Near Product bin	4169	26.10.2024	27.10.2024	969.85	2000
9.	Coal Feeding Area	4170	26.10.2024	27.10.2024	1749.63	2000
IV. Induction Furnace & Rolling Mill						
10.	IF Office	4123	25.10.2024	26.10.2024	1453.61	2000
11.	TMT Stock Yard	4124	25.10.2024	26.10.2024	928.42	2000
12.	RML Gasifier	4125	25.10.2024	26.10.2024	600.24	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	4126	26.10.2024	27.10.2024	1161.83	2000
14.	25 MW ACC	4127	28.10.2024	29.10.2024	418.96	2000
VI. Site Services						
15.	PGP- Coal handling system	4079	25.10.2024	26.10.2024	352.74	2000
16.	IF Slag Crusher	4171	26.10.2024	27.10.2024	948.18	2000
17.	Main Gate	4172	28.10.2024	29.10.2024	240.61	2000
18.	Fly ash Dump	4010	23.10.2024	24.10.2024	241.86	2000

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

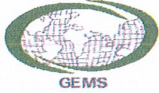
SL NO	INSTRUMENT DETAILS	HVS-01	HVS-02	HVS-03	HVS-04	HVS-05
1	Instrument Name	High Volume Sampler	High Volume Sampler	High Volume Sampler	High Volume Sampler	High Volume Sampler
2	Make & Model	Enviro Instrumets/EI-043	Enviro Instrumets/EI-043	Enviro Instrumets/EI-043	Greentech/GTI-251	Greentech/GTI-251
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


Analysed By
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Chemist


Authorised Signatory
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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/RO18
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	:	OCTOBER-2024(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	:	04.11.2024
10	Report Number	:	GEMS/BMM/FM/2024-25/2566

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)	4220	01.10.2024	02.10.2024	508.52	2000
2.	Near Cone Crusher	4219	01.10.2024	02.10.2024	229.84	2000
3.	Concentrate Thickner	4221	01.10.2024	02.10.2024	500.47	2000
II. Pellet Plant						
4.	PR-6	4223	01.10.2024	02.10.2024	255.53	2000
5.	Annual Cooler Pellet Discharge bin	4236	02.10.2024	03.10.2024	990.54	2000
6.	Additive Grinding Building	4237	02.10.2024	03.10.2024	418.45	2000
III. Sponge Iron Division -2 (Kiln 3 & 4)						
7.	Control room	4265	03.10.2024	04.10.2024	914.19	2000
8.	Near Weigh bridge (dispatch)	4266	03.10.2024	04.10.2024	1858.98	2000
9.	Pellet Storage bin	4239	02.10.2024	03.10.2024	796.82	2000
10.	Transfer House area	4267	03.10.2024	04.10.2024	740.56	2000
11.	Production Separation Bin-PSB	4238	02.10.2024	03.10.2024	597.42	2000
IV. Sponge Iron Division -3 (Kiln 5 & 6)						
12.	Near Control room	4265	03.10.2024	04.10.2024	1751.90	2000
13.	Near Coal Crusher	4317	04.10.2024	05.10.2024	439.43	2000
14.	Near Product bin	4316	04.10.2024	05.10.2024	584.66	2000
15.	Coal Dryer	4318	04.10.2024	05.10.2024	1319.13	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	4319	04.10.2024	05.10.2024	440.16	2000
17.	Monsoon Shed (CPU)	4351	05.10.2024	06.10.2024	284.57	2000
18.	MCC Room (2 nd Gate)	4352	05.10.2024	06.10.2024	218.26	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	4353	05.10.2024	06.10.2024	581.53	2000
20.	2 nd gateweigh bridge Near Coal Screen	4457	08.10.2024	09.10.2024	717.92	2000
21.	CFBC boiler	4354	05.10.2024	06.10.2024	466.43	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	4409	07.10.2024	08.10.2024	182.11	2000
23.	Near Coal storage Shed	4410	07.10.2024	08.10.2024	416.88	2000
24.	Dolochar Processing Area	4411	07.10.2024	08.10.2024	137.97	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

Analysed By
Priyanka B M
Chemist

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Technical Manager



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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/RO18
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	:	OCTOBER-2024(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	:	04.11.2024
10	Report Number	:	GEMS/BMM/FM/2024-25/2869

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)	4707	18.10.2024	19.10.2024	354.31	2000
2.	Near Cone Crusher	4709	18.10.2024	19.10.2024	278.12	2000
3.	Concentrate Thickner	4708	18.10.2024	19.10.2024	292.59	2000
II. Pellet Plant-I						
4.	PR-6	4710	18.10.2024	19.10.2024	181.35	2000
5.	Annual Cooler Pellet Discharge bin	4711	18.10.2024	19.10.2024	255.89	2000
6.	Additive Grinding Building	4734	19.10.2024	20.10.2024	1682.80	2000
III. Sponge Iron Division -2 (Kiln 3&4)						
7.	Control room	4735	19.10.2024	20.10.2024	1014.54	2000
8.	Near Weigh bridge (dispatch)	4744	19.10.2024	20.10.2024	1075.23	2000
9.	Pellet Storage bin	4738	19.10.2024	20.10.2024	923.89	2000
10.	Transfer House area	4736	19.10.2024	20.10.2024	1571.20	2000
11.	Production Separation Bin-PSB	4737	19.10.2024	20.10.2024	1089.92	2000
IV. Sponge Iron Division -2 (Kiln 5&6)						
12.	Near Control room	4754	21.10.2024	22.10.2024	1587.44	2000
13.	Near Coal Crusher	4756	21.10.2024	22.10.2024	567.57	2000
14.	Near Product bin	4755	21.10.2024	22.10.2024	1811.78	2000
15.	Coal Drier	4757	21.10.2024	22.10.2024	444.14	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	4786	22.10.2024	23.10.2024	193.61	2000
17.	Monsoon Shed (CPU)	4787	22.10.2024	23.10.2024	609.96	2000
18.	MCC Room (2 nd Gate)	4788	22.10.2024	23.10.2024	300.86	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	4789	22.10.2024	23.10.2024	408.97	2000
20.	2 nd gate weigh bridge Near Coal Screen	4831	23.10.2024	24.10.2024	1760.23	2000
21.	CFBC boiler	4790	22.10.2024	23.10.2024	295.0	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	4823	23.10.2024	24.10.2024	409.07	2000
23.	Near Coal storage Shed	4824	23.10.2024	24.10.2024	607.50	2000
24.	CPP Dolochar Process Area	4825	23.10.2024	24.10.2024	346.33	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 Instruments/EI-043	Enviro Instruments/EI-043	Enviro Instruments/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

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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TC-5323

ANNEXURE-11
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 : **Pellet Plant-1 ESP**
- 10 Month of Sampling : **OCTOBER-2024**
- 11 Date of Sample Received : 02.10.2024&17.10.2024
- 12 Date of Sample Analysis : 03.10.2024&18.10.2024
- 13 Date of Sample Analysis completion : 04.10.2024&19.10.2024
- 14 Report Issued Date : **04.11.2024**
- 15 Report Number : **ULR-TC532324000002578F**

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
	Date of Monitoring			02.10.2024	17.10.2024	
	Sample Code			4241	4694	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	28	26	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	59	57	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.06	6.12	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	331888	335257	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	297586	302030	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	22.28	29.95	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	256.0	230.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	71.0	58.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.014	0.015	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



Note:

1. 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-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 : **2X100 TPD Sponge iron plant Kiln 1 & 2**
- 10 Month of Sampling : **OCTOBER-2024**
- 11 Date of Sample Received : 05.10.2024&21.10.2024
- 12 Date of Sample Analysis : 06.10.2024&22.10.2024
- 13 Date of Sample Analysis completion : 07.10.2024&23.10.2024
- 14 Report Issued Date : **04.11.2024**
- 15 Report Number : **ULR-TC532324000002663**

Stack Details

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

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1st Fort Night	2nd Fort Night	
				05.10.2024	21.10.2024	
	Date of Monitoring			4357	4760	
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	28	28	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	168	172	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.21	7.12	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	81539	80556	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	55092	53917	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	15.04	16.57	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	163.0	181.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	48.0	39.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.12	0.106	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



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ANNEXURE-13
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 : **OCTOBER-2024 (1st Fort Night)**
- 10 Date of Sample Received : 26.10.2024
- 11 Date of Sample Analysis : 28.10.2024
- 12 Date of Sample Analysis completion : 28.10.2024
- 13 Report Issued Date : **04.11.2024**
- 14 Report Number : **ULR-TC532324000002986F**

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 Furnace 1 & 2											
1	Induction Furnace 1	26.10.2024	4923	Electric Power	29	38	6.08	30	1.2	6.25	150
2	Induction Furnace 2	26.10.2024	4924		28	40	6.20	30	1.3	9.94	150

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	24751	23620	-
2	Induction Furnance 2	29645	28091	-

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-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	Sampling Location	:	Rolling mill reheating furnace
10	Month of Sampling	:	OCTOBER-2024
11	Date of Sample Received	:	29.10.2024
12	Date of Sample Analysis	:	30.10.2024
13	Date of Sample Analysis completion	:	30.10.2024
14	Report Issued Date	:	04.11.2024
15	Report Number	:	ULR-TC532324000002998F

Stack Details

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

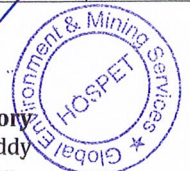
Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1st Fort Night	2nd Fort Night	
				-	28.10.2024	
	Date of Monitoring			-	4951	
	Sample Code			-	4951	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	Shutdown	27	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C		321	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec		8.53	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr		15431	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr		7737.2	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³		13.41	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³		21.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³		168.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%		0.038	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-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/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	: OCTOBER-2024
11	Date of Sample Received	: -
12	Date of Sample Analysis	: -
13	Date of Sample Analysis completion	: -
14	Report Issued Date	: -
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-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/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 : OCTOBER-2024(1st Fort Night)
- 10 Date of Sample Received :
- 11 Date of Sample Analysis :
- 12 Date of Sample Analysis completion :
- 13 Report Issued Date :
- 14 Report Number :

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	NOT IN OPERATION	-	-	-	-	-	-	-	-	-
2	Iron Ore Screen bin	NOT IN OPERATION	-	-	-	-	-	-	-	-	-

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	-	-	-
2	Iron Ore Screen bin	-	-	-

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-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/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 : OCTOBER-2024(1st Fort Night)
- 10 Date of Sample Received : 14.10.2024
- 11 Date of Sample Analysis : 15.10.2024
- 12 Date of Sample Analysis completion : 15.10.2024
- 13 Report Issued Date : 04.11.2024
- 14 Report Number : ULR-TC532324000002827F

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)	14.10.2024	4623	-	29	37	6.47	30	1.5	29.46	50
4	Main Crusher	14.10.2024	4624	-	28	33	5.58	25	0.5	14.62	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)	41163	39455	-
4	Main Crusher	3944	3838	-

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
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Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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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 : OCTOBER-2024 (1st Fort Night)
- 10 Date of Sample Received : 02.10.2024 & 03.10.2024 & 04.10.2024
- 11 Date of Sample Analysis : 03.10.2024 & 04.10.2024 & 05.10.2024
- 12 Date of Sample Analysis completion : 04.10.2024 & 05.10.2024 & 05.10.2024
- 13 Report Issued Date : 04.11.2024
- 14 Report Number : ULR-TC532324000002579

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	02.10.2024	4242	-	32	36	5.58	6.5	0.50	24.17	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	03.10.2024	4270	-	30	35	5.51	3.0	0.30	23.37	50
7	Bentonite Powder bin top bag filter	03.10.2024	4271	-	29	34	5.23	3.0	0.30	25.35	50
8	H-4 Conveyor discharge bag filter	Shutdown	-	-	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	04.10.2024	4322	-	30	38	5.68	7.0	0.50	30.37	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	3948	3794	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1402	1353	-
7	Bentonite Powder bin top bag filter	1331	1288	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	4014	3834	-

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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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/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 : **OCTOBER-2024(1st Fort Night)**
- 10 Date of Sample Received : 10.10.2024&11.10.2024
- 11 Date of Sample Analysis : 11.10.2024&12.10.2024
- 12 Date of Sample Analysis completion : 11.10.2024&12.10.2024
- 13 Report Issued Date : **04.11.2024**
- 14 Report Number : **ULR-TC532324000002752F**

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	09.10.2024	4493	---	31	35	5.21	30	1.20	28.41	50
11	Cooler-2 Discharge	10.10.2024	4538	---	27	35	5.54	30	1.20	26.04	50
12	Intermediate Bin & Blending	10.10.2024	4539	---	28	36	5.94	30	1.20	27.78	50
13	Product House	10.10.2024	4540	---	29	37	5.88	30	1.20	32.15	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	21196	20435	-
11	Cooler-2 Discharge	22541	21789	-
12	Intermediate Bin & Blending	24175	23281	-
13	Product House	23955	22928	-

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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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 : **OCTOBER-2024(2nd Fort Night)**
- 10 Date of Sample Received : 26.10.2024
- 11 Date of Sample Analysis : 27.10.2024
- 12 Date of Sample Analysis completion : 28.10.2024
- 13 Report Issued Date : **04.11.2024**
- 14 Report Number : **ULR-TC532324000002986F**

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	26.10.2024	4923	Electric	29	38	6.08	30	1.2	6.25	50
2	Induction Furnance 2	26.10.2024	4924	Power	28	40	6.20	30	1.3	9.94	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	24751	23620	-
2	Induction Furnance 2	29645	28091	-

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)

[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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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 : OCTOBER-2024(2nd Fort Night)
- 10 Date of Sample Received : 29.10.2024
- 11 Date of Sample Analysis : 30.10.2024
- 12 Date of Sample Analysis completion : 31.10.2024
- 13 Report Issued Date : 04.11.2024
- 14 Report Number : ULR-TC532324000003001F

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	29.10.2024	4965	---	29	34	5.57	25	0.40	16.43	50
2	Iron Ore Screen bin	29.10.2024	4966	---	29	36	5.79	30	0.40	13.63	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	2519	2434	-
2	Iron Ore Screen bin	2618	2512	-

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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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/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 : OCTOBER-2024(2nd Fort Night)
- 10 Date of Sample Received : 28.10.2024&29.10.2024
- 11 Date of Sample Analysis : 29.10.2024&30.10.2024
- 12 Date of Sample Analysis completion : 30.10.2024&31.10.2024
- 13 Report Issued Date : 04.11.2024
- 14 Report Number : ULR-TC532324000002999F

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)	28.10.2024	4952	-	30	38	6.32	30	1.50	34.24	50
4	Main Crusher	29.10.2024	4967	-	27	33	5.49	25	0.50	13.90	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)	40225	38351	-
4	Main Crusher	3880	3772	-

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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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/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 : **OCTOBER-2024 (2nd Fort Night)**
- 10 Date of Sample Received : 18.10.2024 & 19.10.2024
- 11 Date of Sample Analysis : 19.10.2024 & 21.10.2024
- 12 Date of Sample Analysis completion : 19.10.2024 & 21.10.2024
- 13 Report Issued Date : **04.11.2024**
- 14 Report Number : **ULR-TC532324000002847F**

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	17.10.2024	4689	---	27	33	5.45	6.5	0.50	21.98	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	18.10.2024	4736	---	27	33	5.10	3.0	0.30	24.56	50
7	Bentonite Powder bin top bag filter	18.10.2024	4714	---	28	34	5.34	3.0	0.30	20.18	50
8	H-4 Conveyor discharge bag filter	-	-	---	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	19.10.2024	4741	---	28	38	5.31	7.0	0.50	31.07	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	3854	3734	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1299	1261	-
7	Bentonite Powder bin top bag filter	1360	1316	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3755	3587	-

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-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/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 : **OCTOBER-2024 (2nd Fort Night)**
- 10 Date of Sample Received : 25.10.2024 & 26.10.2024
- 11 Date of Sample Analysis : 26.10.2024 & 27.10.2024
- 12 Date of Sample Analysis completion : 27.10.2024 & 28.10.2024
- 13 Report Issued Date : **04.11.2024**
- 14 Report Number : **ULR-TC532324000002960F**

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	25.10.2024	4877	---	28	35	5.34	30	1.20	28.14	50
11	Cooler-2 Discharge	25.10.2024	4878	---	30	35	5.70	30	1.20	24.64	50
12	Intermediate Bin & Blending	25.10.2024	4879	---	29	36	5.87	30	1.20	29.88	50
13	Product House	26.10.2024	4925	---	28	35	5.77	30	1.20	28.50	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	21761	21051	-
11	Cooler-2 Discharge	23191	22367	-
12	Intermediate Bin & Blending	23910	22971	-
13	Product House	23483	22682	-

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-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
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	: Pellet Plant-2 ESP
10	Month of Sampling	: OCTOBER-2024
11	Date of Sample Received	: 01.10.2024&16.10.2024
12	Date of Sample Analysis	: 02.10.2024&17.10.2024
13	Date Sample Analysis Completion	: 03.10.2024&18.10.2024
14	Report Issued Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002567F

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	
				01.10.2024	16.10.2024	
	Date of Monitoring			4224	4664	
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	28	26	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	65	63	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.55	6.37	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	358765	348557	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	315600	309056	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	34.43	32.01	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	389.0	210.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm ³	48.0	38.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.027	0.019	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-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**
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 : **OCTOBER-2024**
- 11 Date of Sample Received : 03.10.2024&18.10.2024
- 12 Date of Sample Analysis : 04.10.2024&19.10.2024
- 13 Date Sample Analysis Completion : 05.10.2024&19.10.2024
- 14 Report Issued Date : **04.11.2024**
- 15 Report Number : **ULR-TC532324000002603F**

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	
				03.10.2024	18.10.2024	
	Date of Monitoring					
	Sample Code			4269	4712	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	30	27	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	125	126	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.87	6.96	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	174763	177024	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	130801	132161	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	36.41	33.94	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	421.0	408.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm ³	84.0	69.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.128	0.136	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-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 5&6
10	Month of Sampling	: OCTOBER-2024
11	Date of Sample Received	: 04.10.2024&19.10.2024
12	Date of Sample Analysis	: 05.10.2024&21.10.2024
13	Date Sample Analysis Completion	: 05.10.2024&21.10.2024
14	Report Issued Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002648F

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	
				04.10.2024	19.10.2024	
	Date of Monitoring			04.10.2024	19.10.2024	
	Sample Code			4320	4739	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	27	27	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	131	129	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.27	7.11	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	184958	180907	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	136394	134088	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	34.78	33.33	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	1130	1212	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	349	351	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.149	0.156	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-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/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	: 1X70 MW-CFBC Boiler ESP
10	Month of Sampling	: OCTOBER-2024
11	Date of Sample Received	: 23.10.2024
12	Date of Sample Analysis	: 24.10.2024
13	Date Sample Analysis Completion	: 24.10.2024
14	Report Issued Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002916F

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	
	Date of Monitoring Sample Code			-	22.10.2024	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	Shutdown	27	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C		124	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec		6.60	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr		167879	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr		125832	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³		26.96	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³		128.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³		19.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%		0.029	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

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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/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	: OCTOBER-2024
11	Date of Sample Received	: -
12	Date of Sample Analysis	: -
13	Date Sample Analysis Completion	: -
14	Report Issued Date	: -
15	Report Number	: -

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
				1 st Fort Night	2 nd Fort Night	
				-	-	
	Date of Monitoring					
	Sample Code					
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)1985(RA 2014)	m ³ /hr			-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(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): 1985 (RA 2014)	mg/Nm ³			600
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³			300
9	Carbon Monoxide	GEMS/SOP/69	%			NS

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

[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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Website : www.globalmining.in



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 Month of Sampling : **OCTOBER-2024 (1st Fort Night)**
- 10 Date of Sample Received : 14.10.2024
- 11 Date of Sample Analysis : 15.10.2024
- 12 Date Sample Analysis Completion : 16.10.2024
- 13 Report Issued Date : **04.11.2024**
- 14 Report Number : **ULR-TC532324000002826F**

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	-	-	---	-	-	-	30	1.20	-	50
2	Iron Ore Screening	14.10.2024	4622	Coal	29	34	5.54	30	0.90	11.59	50

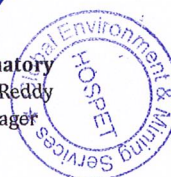
Sl. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Iron Ore Cone Crusher	-	-	-
2	Iron Ore Screening	12698	12312	-

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



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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/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 : **OCTOBER-2024(1st Fort Night)**
- 10 Date of Sample Received : 01.10.2024&02.10.2024
- 11 Date of Sample Analysis : 02.10.2024&03.10.2024
- 12 Date Sample Analysis Completion : 03.10.2024&04.10.2024
- 13 Report Issued Date : **04.11.2024**
- 14 Report Number : **ULR-TC532324000002567F**

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	01.10.2024	4225	---	30	33	5.16	6.5	0.5	27.10	50
4	Lime & Bentonite Powder bin top bag filter	01.10.2024	4226	---	31	35	5.62	6	0.35	22.57	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	02.10.2024	4240	---	31	40	5.44	20	0.5	25.82	50

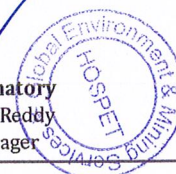
Sl. No	Pellet Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
3	AGB main bag Filter	3646	3536	-
4	Lime & Bentonite Powder bin top bag filter	1948	1876	-
5	AGB De dusting Bag Filter	-	-	-
6	Powder Coal main bag filter	-	-	-
7	RP-6 Conveyor bag Filter	-	-	-
8	Pellet discharge bin bag filter	3848	3653	-

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	: OCTOBER-2024 (1 st Fort Night)
10	Date of Sample Received	: 04.10.2024, 05.10.2024, 07.10.2024 & 08.10.2024
11	Date of Sample Analysis	: 05.10.2024, 07.10.2024, 08.10.2024 & 09.10.2024
12	Date Sample Analysis Completion	: 05.10.2024, 08.10.2024, 09.10.2024 & 10.10.2024
13	Report Issued Date	: 04.11.2024
14	Report Number	: ULR-TC532324000002649F

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	04.10.2024	4321	---	31	32	5.80	30	1.2	28.44	50
10	Cooler Discharge -2	05.10.2024	4355	---	30	35	5.76	30	1.2	25.46	50
11	Coal stock house	05.10.2024	4356	---	27	33	5.17	30	1.2	11.92	50
12	PSB 1 System-1	07.10.2024	4413	---	28	34	5.59	30	1.2	29.58	50
13	PSB 1 System-2	07.10.2024	4414	---	29	36	5.07	30	1.2	32.93	50
14	PSB 2 System-1 MCC	07.10.2024	4415	---	30	37	5.85	30	1.2	31.08	50
15	PSB 1 System-2 Road	07.10.2024	4416	---	31	37	5.92	30	1.2	28.72	50
16	Junction House Old & New	08.10.2024	4461	---	29	38	5.79	30	1.2	34.14	50
17	Storage Bunker	08.10.2024	4462	---	29	34	5.62	30	1.2	26.62	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	23616	22898	-
10	Cooler Discharge -2	23437	22611	-
11	Coal stock house	21061	20441	-
12	PSB 1 System-1	22750	22074	-
13	PSB 1 System-2	20659	19906	-
14	PSB 2 System-1 MCC	23818	22832	-
15	PSB 1 System-2 Road	24121	23114	-
16	Junction House Old & New	23577	22589	-
17	Storage Bunker	22877	22192	-
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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Website : www.globalmining.in



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/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 : OCTOBER-2024(1st Fort Night)
- 10 Date of Sample Received : 08.10.2024&09.10.2024
- 11 Date of Sample Analysis : 09.10.2024&10.10.2024
- 12 Date Sample Analysis Completion : 10.10.2024&11.10.2024
- 13 Report Issued Date : 04.11.2024
- 14 Report Number : ULR-TC532324000002737F

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	08.10.2024	4463	---	30	36	5.24	30	1.2	32.20	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	08.10.2024	4464	---	31	37	5.68	30	1.2	33.77	50
21	DE 8 & 12 I-Bin, (Stand By)	09.10.2024	4490	---	26	35	6.04	30	1.9	30.22	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	09.10.2024	4491	---	27	36	5.55	30	1.9	31.12	50
23	Coal Dryer	09.10.2024	4492	---	28	41	6.43	27	1.2	34.69	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	21352	20530	-
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	23147	22172	-
21	DE 8 & 12 I-Bin, (Stand By)	61642	59373	-
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	56608	54529	-
23	Coal Dryer	26183	24777	-

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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Website : www.globalmining.in



TC-5323

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/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 : OCTOBER-2024 (2nd Fort Night)
- 10 Date of Sample Received : 28.10.2024
- 11 Date of Sample Analysis : 29.10.2024
- 12 Date Sample Analysis Completion : 30.10.2024
- 13 Report Issued Date : 04.11.2024
- 14 Report Number : ULR-TC532324000002997F

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	28.10.2024	4950	---	30	34	5.22	30	0.90	18.30	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	11955	11540	-

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.

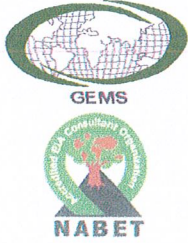
Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

1. 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-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	: OCTOBER-2024(2 nd Fort Night)
10	Date of Sample Received	: 17.10.2024 & 18.10.2024
11	Date of Sample Analysis	: 18.10.2024 & 19.10.2024
12	Date Sample Analysis Completion	: 18.10.2024 & 19.10.2024
13	Report Issued Date	: 04.11.2024
14	Report Number	: ULR-TC532324000002846F

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	16.10.2024	4665	---	27	33	5.37	6.5	0.5	24.40	50
4	Lime & Bentonite Powder bin top bag filter	16.10.2024	4666	---	27	35	5.21	6	0.35	24.98	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	17.10.2024	4688	---	27	38	5.67	20	0.5	30.01	50

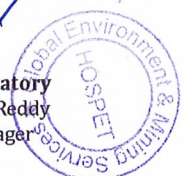
Sl. No	Pellet Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
3	AGB main bag Filter	3301	3177	-
4	Lime & Bentonite Powder bin top bag filter	1587	1521	-
5	AGB De dusting Bag Filter	-	-	-
6	Powder Coal main Bagfilter	-	-	-
7	RP-6 Conveyor bag Filter	-	-	-
8	Pellet discharge bin Bagfilter	4006	3820	-

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	: OCTOBER-2024(2nd Fort Night)
10	Date of Sample Received	: 19.10.2024, 21.10.2024, 22.10.2024 & 23.10.2024
11	Date of Sample Analysis	: 21.10.2024, 22.10.2024, 23.10.2024 & 24.10.2024
12	Date Sample Analysis Completion	: 22.10.2024, 23.10.2024, 24.10.2024 & 25.10.2024
13	Report Issued Date	: 04.11.2024
14	Report Number	: ULR-TC532324000002885F

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	19.10.2024	4740	Coal	28	34	5.28	30	1.2	31.07	50
10	Cooler Discharge -2	21.10.2024	4758	Coal	29	34	5.67	30	1.2	28.32	50
11	Coal stock house	21.10.2024	4759	Coal	28	33	5.05	30	1.2	11.11	50
12	PSB 1 System-1	22.10.2024	4792	Coal	29	35	5.51	30	1.2	28.66	50
13	PSB 1 System-2	22.10.2024	4793	Coal	28	36	5.19	30	1.2	30.90	50
14	PSB 2 System-1 MCC	23.10.2024	4827	Coal	26	36	5.76	30	1.2	32.57	50
15	PSB 1 System-2 Road	23.10.2024	4828	Coal	27	35	5.96	30	1.2	29.65	50
16	Junction House Old & New	23.10.2024	4829	Coal	29	38	5.41	30	1.2	34.39	50
17	Storage Bunker	23.10.2024	4830	Coal	28	37	5.07	30	1.2	25.72	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	21491	20798	-
10	Cooler Discharge -2	23088	22347	-
11	Coal stock house	20584	19974	-
12	PSB 1 System-1	22451	21630	-
13	PSB 1 System-2	21138	20367	-
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.

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: 28.03.2024
Calibration Due Date: 27.03.2025
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : OCTOBER-2024(2nd Fort Night)
- 10 Date of Sample Received : 24.10.2024&25.10.2024
- 11 Date of Sample Analysis : 25.10.2024&26.10.2024
- 12 Date Sample Analysis Completion : 26.10.2024&26.10.2024
- 13 Report Issued Date : 04.11.2024
- 14 Report Number : ULR-TC532324000002951F

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	24.10.2024	4851	---	27	34	5.11	30	1.20	30.89	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	24.10.2024	4852	---	28	35	5.40	30	1.20	29.29	50
21	DE 8 & 12 I-Bin, (Stand By)	24.10.2024	4853	---	29	36	5.83	30	1.90	29.48	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	24.10.2024	4854	---	30	37	5.66	30	1.90	33.18	50
23	Coal Dryer	25.10.2024	4876	---	27	40	6.50	30	1.20	31.04	50

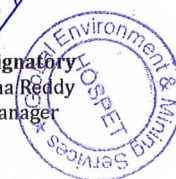
Sl. No	2X500 TPD Sponge Iron Kiln 3&4	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
19	DE 3, Axis 3 CD	18079	17390	-
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	19586	18771	-
21	DE 8 & 12 I-Bin, (Stand By)	51041	49267	-
22	DE 9 & 10 PSB 1 & 2 Product Separation 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.

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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Website : www.globalmining.in



TC-5323

ANNEXURE-38
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 : Calibration Date: 02.11.2023
Due Calibration: 04.11.2024
Month : **OCTOBER-2024**
Report Issue Date : **04.11.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000002570F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)		
			Day Time		Standard
			Min	Max	
1	Main Gate	01.10.2024	48.6	54.2	75
2	Near ATM	01.10.2024	42.6	54.8	75
3	Transit House	02.10.2024	52.9	58.0	75
4	CAAQMS Station	02.10.2024	50.1	59.2	75
5	Gunda Road	03.10.2024	52.8	68.5	75
6	Gunda Railway Station	03.10.2024	67.8	73.0	75
7	Bagging Shed	04.10.2024	59.0	66.9	75
8	Railway Siding	04.10.2024	67.8	72.8	75
9	4th Gate	05.10.2024	52.6	58.6	75
10	Bricks Plant	05.10.2024	61.6	70.9	75
11	Kempuhalla (Wagon Tippler)	07.10.2024	51.8	57.6	75
12	Danapura Bridge	07.10.2024	57.0	65.8	75
13	2nd Gate	08.10.2024	57.2	64.0	75
14	Project Store	08.10.2024	45.8	52.6	75
15	Dispatch (Truck Parking Area)	09.10.2024	60.8	71.9	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:

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TC-5323

ANNEXURE-39
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 : Calibration Date: 02.11.2023
Due Calibration: 04.11.2024
Month : **OCTOBER-2024**
Report Issue Date : **04.11.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000002848F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)		
			Day Time		Standard
			Min	Max	
1	Main Gate	16.10.2024	46.2	58.9	75
2	Near ATM	16.10.2024	45.2	52.2	75
3	Transit House	17.10.2024	55.9	63.0	75
4	CAAQMS Station	17.10.2024	50.2	57.2	75
5	Gunda Road	18.10.2024	55.0	61.8	75
6	Gunda Railway Station	18.10.2024	61.6	68.8	75
7	Bagging Shed	19.10.2024	55.8	67.9	75
8	Railway Siding	19.10.2024	67.5	72.0	75
9	4th Gate	21.10.2024	51.6	59.0	75
10	Bricks Plant	21.10.2024	59.8	65.8	75
11	Kempuhalla (Wagon Tippler)	22.10.2024	48.8	58.0	75
12	Danapura Bridge	22.10.2024	61.8	68.0	75
13	2nd Gate	23.10.2024	48.5	56.0	75
14	Project Store	23.10.2024	47.6	52.0	75
15	Dispatch (Truck Parking Area)	24.10.2024	62.0	71.6	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:

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Ph : 08394 355369

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TC-5323

ANNEXURE-40
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/R018 - 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 : Calibration Date: 02.11.2023
Due Calibration: 04.11.2024
Month : **OCTOBER-2024**
Report Issue Date : **04.11.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000002572F**

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	01.10.2024	42.8	55.6	52.82	55	38.2	42.9	39.62	45
2	Mariyammana Halli	02.10.2024	41.2	53.8	51.01		39.0	42.0	41.21	
3	Hanumana Halli	02.10.2024	42.2	53.2	51.23		38.6	43.0	40.82	
4	Galemmanagudi	03.10.2024	42.6	55.6	53.23		39.0	43.0	41.23	
5	G.Nagalapura Village	04.10.2024	41.8	52.6	50.86		37.6	41.9	39.62	
6	Gunda Tanda Village	05.10.2024	40.0	51.2	50.12		37.0	40.0	38.62	

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

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-41
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

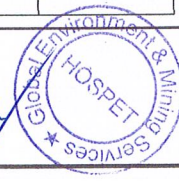
- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Grab Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical
- 7 Group : Pollution & Environment
- 8 Sample Type : Ground Water
- 9 Sample Code : **4361**
- 10 Date of Sampling : 05.10.2024
- 11 Sample Received : 06.10.2024
- 12 Date of Analysis : 06.10.2024
- 13 Date of Analysis Completion : 11.10.2024
- 14 Report Issue Date : **04.11.2024**
- 15 Report Number : **ULR-TC532324000002667F**

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)	-	7.15	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	2800	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1680	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	372.52	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	379.7	-	-
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	129.53	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	61.35	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	575.7	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	357.12	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	17.56	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	572.4	200	600

Note:

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ANNEXURE-41

17.	Acidity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.18	0.30	NR
19.	Nickel as Ni	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.05	1.50
22.	Zinc as Zn	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<1.0	5	15
23.	Lead as Pb	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23rd 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.

Priyanka B M
Analysed By
Priyanka B M
Chemist

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



Note:

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ANNEXURE-41
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	: 4361
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: GEMS/WATER/2024-2025/2667

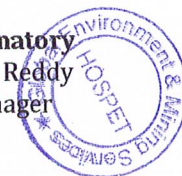
Results

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.	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-42 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	: 4363
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002669F

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)	-	7.46	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	720	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	432	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.3	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	126	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	59.8	-	-
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	42.48	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	12.83	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	159.0	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl-	mg/L	68.48	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.57	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	16.26	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	134.4	200	600

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ANNEXURE-42


17.	Acidity as CaCO ₃	APHA 22 nd 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

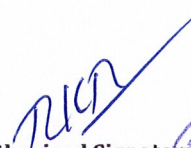
Note: GW2: Hanumanahalli Village. NR-No relaxation.

INFERENCE

As per Standards IS: 10500:2012

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

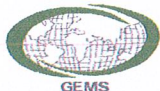

Analysed By
Priyanka B M
Chemist


Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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ANNEXURE-42
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 : **4363**
- 10 Date of Sampling : 05.10.2024
- 11 Sample Received : 06.10.2024
- 12 Date of Analysis : 06.10.2024
- 13 Date of Analysis Completion : 11.10.2024
- 14 Report Issue Date : **04.11.2024**
15. Report Number : **GEMS/WATER/2024-2025/2669**

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.	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

- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
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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	: 4364
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: ULR-TC5323240000002670F

Results

Sl. No	Parameters	Protocol	Unit	Galemmana Gudi Village (GW3)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.86	6.5 to 8.5	NR
2.	Conductivity	APHA 23rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	2300	-	-
3.	Total Dissolved Solids	APHA 23rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1380	500	2000
4.	Turbidity (NTU)	APHA 23rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5
5.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	200.36	200	400
7.	Phosphorus as P	APHA 23rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	295.65	-	-
9.	Potassium as K	APHA 23rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	31.6	-	-
10.	Calcium as Ca	APHA 23rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	133.58	75	200
11.	Magnesium as Mg	APHA 23rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	61.35	30	100
12.	Total Hardness as CaCO ₃	APHA 23rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	585.8	200	600
13.	Chloride as Cl	APHA 23rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	337.55	250	1000
14.	Fluoride as F	APHA 23rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	1.23	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	15.68	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	448	200	600

Note:

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ANNEXURE-43

17.	Acidity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.16	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 23rd 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.

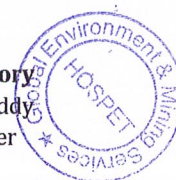
INFERENCE

As per Standards IS: 10500:2012

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

Priyanka B M
Analysed By
Priyanka B M
Chemist

K. Ramakrishna 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.
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ANNEXURE-43
GEMS-LD/TF/23/01

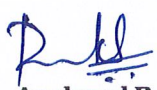
Analysis Report of Water Quality Data


1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/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	: 4364
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: GEMS/WATER/2024-2025/2670

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.	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-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/R018 - 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	: 4362
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002668F

Results

Sl. No	Parameters	Protocol	Unit	Mariyammana Halli Village (GW4)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.13	6.5 to 8.5	NR
2.	Conductivity	APHA 23rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	2900	-	-
3.	Total Dissolved Solids	APHA 23rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L		500	2000
4.	Turbidity (NTU)	APHA 23rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5
5.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	192.56	200	400
7.	Phosphorus as P	APHA 23rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	558.35	-	-
9.	Potassium as K	APHA 23rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0	-	-
10.	Calcium as Ca	APHA 23rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	133.58	75	200
11.	Magnesium as Mg	APHA 23rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	61.35	30	100
12.	Total Hardness as CaCO ₃	APHA 23rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	555.5	200	600
13.	Chloride as Cl	APHA 23rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	337.55	250	1000
14.	Fluoride as F	APHA 23rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.31	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	15.68	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	583	200	600

Note:

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TC-5323

ANNEXURE-44

17.	Acidity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.15	0.30	NR
19.	Nickel as Ni	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.05	1.50
22.	Zinc as Zn	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<1.0	5	15
23.	Lead as Pb	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23rd 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. R. Reddy
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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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/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	: 4362
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: GEMS/WATER/2024-2025/2668

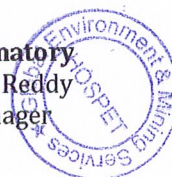
Results

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

Analysis Report of Water Quality Data

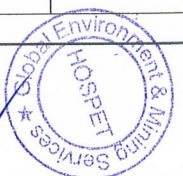
1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18 - 450000125
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 4365
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002671F

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)	-	7.76	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	800	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	480	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.2	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	40.32	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	72.48	-	-
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	72.21	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	15.37	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	243.8	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	63.59	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	1.02	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	5.02	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	324.8	200	600

Note:

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TC-5323

ANNEXURE-45

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

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

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



Note:

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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	: 4365
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: GEMS/WATER/2024-2025/2671

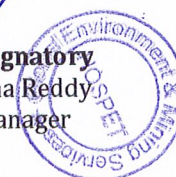
Results

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-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 - 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	: 4366
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002672F

Results

Sl. No	Parameters	Protocol	Unit	G.Naglapura (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)	-	7.42	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	2400	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	480	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.3	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	148.36	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	458.63	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	122.4	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	58.32	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	546	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	313.06	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	1.09	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	11.23	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	456.96	200	600

Note:

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17.	Acidity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.16	0.30	NR
19.	Nickel as Ni	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.05	1.50
22.	Zinc as Zn	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<1.0	5	15
23.	Lead as Pb	APHA 23rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.01	0.01	NR
24.	Arsenic as As	APHA 23rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	<0.01	0.01	0.05
25.	Chromium as Cr	APHA 23rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.01	0.05	NR

Note: GW6: G.Nagalapura. 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:

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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	: 4366
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: GEMS/WATER/2024-2025/2672

Results

Sl. No	Parameters	Protocol	Unit	G.Nagalapura (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-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 - 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	: 4367
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: ULR-TC532324000002673F

Results

Sl. No	Parameters	Protocol	Unit	RO Drinking Water	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.35	6.5 to 8.5	NR
2.	Conductivity	APHA 23rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	190	-	-
3.	Total Dissolved Solids	APHA 23rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	114	500	2000
4.	Turbidity (NTU)	APHA 23rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0	1	5
5.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	10.26	200	400
7.	Phosphorus as P	APHA 23rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	10.52	-	-
9.	Potassium as K	APHA 23rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0	-	-
10.	Calcium as Ca	APHA 23rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	12.74	75	200
11.	Magnesium as Mg	APHA 23rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	5.13	30	100
12.	Total Hardness as CaCO ₃	APHA 23rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	53	200	600
13.	Chloride as Cl	APHA 23rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	29.35	250	1000
14.	Fluoride as F	APHA 23rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	2.42	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	67.2	200	600

Note:

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TC-5323

ANNEXURE-47


17.	Acidity as CaCO ₃	APHA 22 nd 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	0.1	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-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	: RO Drinking Water
9	Sample Code	: 4367
10	Date of Sampling	: 05.10.2024
11	Sample Received	: 06.10.2024
12	Date of Analysis	: 06.10.2024
13	Date of Analysis Completion	: 11.10.2024
14	Report Issue Date	: 04.11.2024
15	Report Number	: GEMS/RO/2024-2025/2673

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	0.5	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

- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
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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	: 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	: 05.10.2024
10	Sample Received	: 06.10.2024
11	Date of Analysis	: 06.10.2024
12	Date of Analysis Completion	: 11.10.2024
13	Report Issue Date	: 04.11.2024
14	Report Number	: ULR-TC532324000002686F

Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
		Sample code	-	4384	4385	4386	
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.57	7.63	7.12	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	6.0	10.0	8.0	<20
3.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	2.0	8.0	6.0	<10
4.	Chemical Oxygen Demand as COD	APHA 23 rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	19.6	44.3	40.3	<50
5.	Oil & Grease	APHA 23 rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	2.0	6.0	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

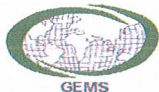
Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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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/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	: 05.10.2024
10	Sample Received	: 06.10.2024
11	Date of Analysis	: 06.10.2024
12	Date of Analysis Completion	: 11.10.2024
13	Report Issue Date	: 04.11.2024
14	Report Number	: GEMS/RO/2024-2025/2686

Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
		Sample code	-	4384	4385	4386	
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	0.42	2.66	0.28	5
7.	Total Nitrogen as N	IS:3025 (part 34)-1988, RA-2023	mg/L	6.24	8.36	4.42	10
8.	Fecal coliform	APHA-23 RD Edition-9221 E (Pg. No.9-77 to 9-78)	CFU/100ml	20	21	17	Less than 100

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

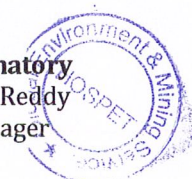
STP 45 KLD – Near Fortivia

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-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/R018 - 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	: 05.10.2024
10	Sample Received	: 06.10.2024
11	Date of Analysis	: 06.10.2024
12	Date of Analysis Completion	: 11.10.2024
13	Report Issue Date	: 04.11.2024
14	Report Number	: ULR-TC532324000002674F

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		
				4368	4369	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.55	7.72	6.5 to 9.0
2.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	12.0	8.0	100
3.	Chemical Oxygen Demand as COD	APHA 23rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	58.8	39.2	250
4.	Oil & Grease	APHA 23rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	4.0	2.0	10

Note: BDL-Below detectable Limit.

INFERENCE: The Measured values are within the Limit.

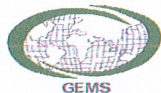
Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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

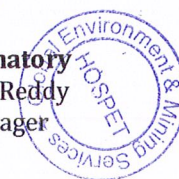
Analysis Report of Surface Water Quality Data

- 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 : 05.10.2024
- 10 Sample Received : 06.10.2024
- 11 Date of Analysis : 06.10.2024
- 12 Date of Analysis Completion : 11.10.2024
- 13 Report Issue Date : **04.11.2024**
- 14 Report Number : **GEMS/SW/2024-2025/2676**

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS -B
				Danayakanakere Upstream	Danayakanakere Downstream	
Sample code				4370	4371	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.54	7.66	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	0.98	0.54	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	5.4	5.8	>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
	Escherichia coli or E. coli	IS : 1622:1981	MPN/ 100 ml	Absent	Absent	-

Analysed By
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Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



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

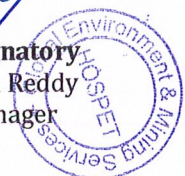
Analysis Report of Surface Water Quality Data

- 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 : 05.10.2024
- 10 Sample Received : 06.10.2024
- 11 Date of Analysis : 06.10.2024
- 12 Date of Analysis Completion : 11.10.2024
- 13 Report Issue Date : **04.11.2024**
- 14 Report Number : **GEMS/SW/2024-2025/2678**

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS -B
				KempuHalla Upstream	KempuHalla Downstream	
Sample code				4372	4373	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.16	8.22	6.5-8.5
2.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	4.0	6.0	3.0
3.	Fluorides as F	APHA 23 RD Edition 4500F- D (Pg. No.4-90 to 4-91)	mg/L	1.42	0.98	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	5.8	5.2	>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
	Escherichia coli or E. coli	IS : 1622:1981	MPN/ 100 ml	Absent	Absent	-

Analysed By
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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/Biological
- 7 Group : Pollution & Environment
- 8 Sample Type : **Surface Water**
- 9 Date of Sampling : 05.10.2024
- 10 Sample Received : 06.10.2024
- 11 Date of Analysis : 06.10.2024
- 12 Date of Analysis Completion : 11.10.2024
- 13 Report Issue Date : **04.11.2024**
- 14 Report Number : **GEMS/SW/2024-2025/22680**

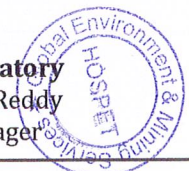
Sl. No.	Parameters	Protocol	Unit	Results	IS 2296 -1982 CLASS -B
				Tungabhadra dam	
			Sample Code	4374	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.32	6.5-8.5
2.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	2.0	3.0
3.	Fluorides as F	APHA 23 RD Edition 4500F- D (Pg. No.4-90 to 4-91)	mg/L	0.41	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	5.8	>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	160	-
12.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	4.0	-
13.	Total Coliform Organisms,				
	Total Coli forms	IS : 1622:1981	MPN/100 ml	Absent	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.

Analysed By
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