



BMM Ispat Ltd.,

ENVIRONMENTAL MONITORING REPORT



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

AUGUST-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.

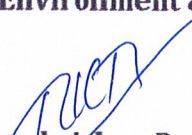
As part of the conditions and inherent concern on health of the employees and surroundings *M/s. BMM Ispat Ltd.*, as appointed *M/s. Global Environment & Mining Services, Hosapete*, to carry out the environmental pollution monitoring on AAQ Monitoring, Fugitive monitoring, Noise Monitoring, Water Analysis & 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:02.09.2024


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	EHF & 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 **AUGUST-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) PM_{2.5}.

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 60 Sample 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 44.23, 10.94, 7.45 & 9.06 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 36.34, 09.30, 9.22 & 10.95 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 46.41, 10.49, 9.35 & 10.66 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 50.69, 10.16, 7.64 & 9.58 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 40.63, 9.44, 7.95 & 9.22 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 33.20, 7.29, 7.94 & 9.48 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 177.27 $\mu\text{g}/\text{m}^3$, maximum value 1778.84 $\mu\text{g}/\text{m}^3$ and average value 850.58 $\mu\text{g}/\text{m}^3$. 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 11.41 mg/Nm^3 , Maximum Value 39.29 mg/Nm^3 & Average Value 28.08 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 46.2 to 74.6 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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e-mail : gems_hpt@yahoo.com
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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 : **AUGUST-2024**
Location : **A1-Danapur Village**
Duration of Monitoring : 24 Hour
Report Issued Date : **02.09.2024**
Report Number : **ULR-TC532324000001609F**

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
05.08.2024	06.08.2024	2751	58.01	100	14.35	60	7.55	80	9.73	80
06.08.2024	07.08.2024	2790	44.69		12.38		7.65		7.82	
12.08.2024	13.08.2024	2947	51.02		14.61		5.95		8.97	
13.08.2024	14.08.2024	2973	26.75		5.96		8.67		9.52	
22.08.2024	23.08.2024	3170	38.15		4.53		6.94		7.81	
23.08.2024	24.08.2024	3195	42.33		10.11		7.12		8.61	
29.08.2024	30.08.2024	3312	49.11		13.61		8.10		10.51	
30.08.2024	31.08.2024	3337	43.74		11.95		7.58		9.51	
Average			44.23		10.94		7.45		9.06	

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

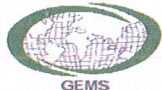
INFERENCE As per NAAQMS Standards (2009),
Report Status: - Measured Values for the above parameters are within the limit.

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 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.
- 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 Analyser
 Month : AUGUST-2024
 Location : A1-Danapur Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 02.09.2024
 Report Number : GEMS/BMM/NAAQ/2024-25/1609

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	05.08.2024	2751	0.16	4.0
2	06.08.2024	2790	0.10	
3	12.08.2024	2947	0.12	
4	13.08.2024	2973	<0.01	
5	22.08.2024	3170	0.14	
6	23.08.2024	3195	<0.01	
7	29.08.2024	3312	<0.01	
8	30.08.2024	3337	<0.01	


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

ND - Not Detected

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

INFERENCE	As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit
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 Analysed By
 Priyanka B M
 Chemist


 Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager



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



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TC-5323

ANNEXURE-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 : AUGUST-2024
Location : A2-Mariyammanahalli Village
Duration of Monitoring : 24 Hour
Report Issued Date : 02.09.2024
Report Number : ULR-TC532324000001692F

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
08.08.2024	09.08.2024	2869	42.41	100	11.07	60	9.80	80	11.99	80
09.08.2024	10.08.2024	2901	39.90		8.26		7.00		8.86	
16.08.2024	17.08.2024	3037	23.88		3.82		9.25		10.81	
17.08.2024	18.08.2024	3069	19.19		3.94		8.08		10.49	
19.08.2024	20.08.2024	3102	34.49		11.94		11.09		12.12	
20.08.2024	21.08.2024	3115	42.71		11.88		9.49		10.74	
26.08.2024	27.08.2024	3277	46.46		11.46		7.92		10.19	
27.08.2024	28.08.2024	3297	41.70		12.01		11.12		12.37	
Average			36.34		9.30		9.22		10.95	

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.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
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ANNEXURE-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 : **AUGUST-2024**
 Location : **A2-Mariyammanahalli Village**
 Duration of Monitoring : 1 Hour
 Report Issued Date : **02.09.2024**
 Report Number : **GEMS/BMM/NAAQ/2024-25/1692**

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	08.08.2024	2869	0.14	4.0
2	09.08.2024	2901	0.12	
3	16.08.2024	3037	0.10	
4	17.08.2024	3069	<0.01	
5	19.08.2024	3102	0.12	
6	20.08.2024	3115	<0.01	
7	26.08.2024	3277	<0.01	
8	27.08.2024	3297	<0.01	

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

ND - Not Detected

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

INFERENCE	As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit
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Analysed By
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	: AUGUST-2024
Location	: A3-Hanumanahalli Village
Duration of Monitoring	: 24 Hour
Report Issued Date	: 02.09.2024
Report Number	: ULR-TC532324000001601F

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
05.08.2024	06.08.2024	2752	53.64	100	11.06	60	8.79	80	10.05	80
06.08.2024	07.08.2024	2791	37.84		13.70		9.79		11.13	
16.08.2024	17.08.2024	3036	49.86		9.77		9.18		11.65	
17.08.2024	18.08.2024	3070	29.79		4.38		10.76		12.19	
19.08.2024	20.08.2024	3101	49.96		8.96		8.77		9.55	
20.08.2024	21.08.2024	3116	45.04		12.37		9.40		10.27	
29.08.2024	30.08.2024	3313	58.90		14.58		8.95		9.56	
30.08.2024	31.08.2024	3338	46.29		9.13		9.21		11.84	
Average			46.41		10.49		9.35		10.66	

SL NO	INSTRUMENT DETAILS		
1	Instrument Name	Respirable Dust Sampler (RDS)	Fine Particulate Sampler (FPS)
2	Make & Model	Enviro instruments / EL-142 NL	Enviro instruments / EL-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.

Priyanka B M
Analysed By
Priyanka B M
Chemist

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

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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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/RO18
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : AUGUST-2024
 Location : A3-Hanumanahalli Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 02.09.2024
 Report Number : GEMS/BMM/NAAQ/2024-25/1601

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	05.08.2024	2752	0.10	4.0
2	06.08.2024	2791	0.16	
3	16.08.2024	3036	0.12	
4	17.08.2024	3070	<0.01	
5	19.08.2024	3101	0.10	
6	20.08.2024	3116	0.12	
7	29.08.2024	3313	<0.01	
8	30.08.2024	3338	<0.01	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)
 ND - Not Detected

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

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

ANNEXURE-04

GEMS-LD/TF/11/01

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference	: WO/ADMIN/FY24/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	: AUGUST-2024
Location	: A4-Galemmanagudi Village
Duration of Monitoring	: 24 Hour
Report Issue Date	: 02.09.2024
Report Number	: ULR-TC532324000001611F

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
05.08.2024	06.08.2024	2753	68.16	100	14.32	60	7.23	80	9.96	80
06.08.2024	07.08.2024	2792	55.03		10.69		8.10		8.59	
12.08.2024	13.08.2024	2948	63.87		10.61		6.05		8.25	
13.08.2024	14.08.2024	2974	32.41		7.81		11.42		11.67	
22.08.2024	23.08.2024	3171	26.12		7.39		5.29		7.98	
23.08.2024	24.08.2024	3196	39.49		6.21		7.02		8.48	
29.08.2024	30.08.2024	3314	62.90		14.71		5.42		8.73	
30.08.2024	31.08.2024	3339	57.58		9.52		10.57		12.97	
Average			50.69		10.16		7.64		9.58	

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 15Days, 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/RO18
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : AUGUST-2024
 Location : A4-Galemmanagudi Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 02.09.2024
 Report Number : GEMS/BMM/NAAQ/2024-25/1611

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	05.08.2024	2753	0.18	4.0
2	06.08.2024	2792	0.12	
3	12.08.2024	2948	0.10	
4	13.08.2024	2974	0.12	
5	22.08.2024	3171	0.14	
6	23.08.2024	3196	0.12	
7	29.08.2024	3314	0.18	
8	30.08.2024	3339	0.12	

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/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 : AUGUST-2024
Location : A5-G Nagalapura Village
Duration of Monitoring : 24 Hour
Report Issue Date : 02.08.2024
Report Number : ULR-TC532324000001612F

RESULTS

Parameters			PM10 [µg/m3]		PM2.5 [µg/m3]		SO2 [µg/m3]		NO2 [µg/m3]	
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
05.08.2024	06.08.2024	2754	53.60	100	12.13	60	7.16	80	9.01	80
06.08.2024	07.08.2024	2793	51.00		9.52		9.51		10.12	
12.08.2024	13.08.2024	2950	42.62		10.18		7.83		9.49	
13.08.2024	14.08.2024	2976	25.15		6.08		6.73		7.46	
22.08.2024	23.08.2024	3172	30.48		10.23		8.72		9.49	
23.08.2024	24.08.2024	3197	34.89		8.24		8.05		9.18	
29.08.2024	30.08.2024	3315	32.11		6.04		9.16		10.19	
30.08.2024	31.08.2024	3340	55.15		13.09		6.46		8.80	
Average			40.63		9.44		7.95		9.22	

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/RO18
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : AUGUST-2024
 Location : A5- G Nagalapura Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 02.09.2024
 Report Number : GEMS/BMM/NAAQ/2024-25/1612

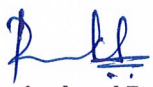
RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	05.08.2024	2754	0.12	4.0
2	06.08.2024	2793	<0.01	
3	12.08.2024	2950	0.10	
4	13.08.2024	2976	0.10	
5	22.08.2024	3172	<0.01	
6	23.08.2024	3197	<0.01	
7	29.08.2024	3315	<0.01	
8	30.08.2024	3340	<0.01	

Note: CO - GEMS/SOP/86/as per CO Analyzer Manual (1 Hour)
 ND - Not Detected

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

INFERENCE	As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit
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 Analysed By
 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/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 : AUGUST-2024
 Location : A6-Gunda Tanda Village
 Duration of Monitoring : 24 Hour
 Report Issue Date : 02.09.2024
 Report Number : ULR-TC532324000001693F

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
08.08.2024	09.08.2024	2870	54.81	100	11.82	60	7.33	80	8.22	80
09.08.2024	10.08.2024	2902	38.38		6.05		6.39		9.30	
12.08.2024	13.08.2024	2949	45.52		9.90		9.23		10.97	
13.08.2024	14.08.2024	2975	21.38		4.20		8.03		9.70	
19.08.2024	20.08.2024	3103	31.99		10.22		8.25		10.13	
20.08.2024	21.08.2024	3132	21.48		3.40		7.89		8.32	
26.08.2024	27.08.2024	3279	27.93		5.46		8.87		9.68	
27.08.2024	28.08.2024	3298	24.12		7.32		7.51		9.53	
Average			33.20		7.29		7.94		9.48	

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 15Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
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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 : AUGUST-2024
 Location : A6-Gunda Tanda Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 02.09.2024
 Report Number : GEMS/BMM/NAAQ/2024-25/1693

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	08.08.2024	2870	<0.01	4.0
2	09.08.2024	2902	<0.01	
3	12.08.2024	2949	<0.01	
4	13.08.2024	2975	<0.01	
5	19.08.2024	3103	<0.01	
6	20.08.2024	3132	<0.01	
7	26.08.2024	3279	<0.01	
8	27.08.2024	3298	<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	: RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	: AUGUST-2024(1st Fort Night)
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Method adopted	: IS 5182 (Part 4): 1999 RA 2014
9	Report Issued Date	: 02.09.2024
10	Report Number	: GEMS/BMM/FM/2024-25/1656

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	2823	07.08.2024	08.08.2024	1214.07	2000
2.	Near Iron Ore Bottom Hopper	3821	07.08.2024	08.08.2024	723.65	2000
3.	Iron Ore Screen	2822	07.08.2024	08.08.2024	1195.13	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	2824	07.08.2024	08.08.2024	830.61	2000
5.	Annual Cooler Pellet Discharge bin	2825	07.08.2024	08.08.2024	1387.35	2000
6.	Pellet Stock Yard	2858	08.08.2024	09.08.2024	566.22	2000
III. Sponge Iron Division-1 (kiln 1 & 2)						
7.	Control Room SID-1	2892	09.08.2024	10.08.2024	1778.84	2000
8.	Near Product bin	2893	09.08.2024	10.08.2024	1308.87	2000
9.	Coal Feeding Area	2894	09.08.2024	10.08.2024	933.98	2000
IV. Induction Furnace & Rolling Mill - 1						
10.	IF Office	2859	08.08.2024	09.08.2024	786.17	2000
11.	TMT Stock Yard	2860	08.08.2024	09.08.2024	657.04	2000
12.	RML Gasifier	2861	08.08.2024	09.08.2024	555.65	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	2896	09.08.2024	10.08.2024	1395.44	2000
14.	25 MW ACC	2920	10.08.2024	10.08.2024	428.68	2000
VI. Site Services						
15.	PGP- coal handling system	2862	08.08.2024	09.08.2024	424.46	2000
16.	IF Slag Crusher	2895	09.08.2024	10.08.2024	1296.15	2000
17.	Main Gate	2921	10.08.2024	10.08.2024	177.27	2000
18.	Fly ash Dump	2786	06.08.2024	07.08.2024	1019.21	2000

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

SL NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03	GEMS-04	GEMS-05
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler
2	Make & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151
3	Serial No	RDS / 241-DTC-2020	RDS / 243-DTL-2020	RDS / 244-DTL-2020	RDS / 193-DTH-2019	RDS / 197-DTH-2019
4	Calibration Date	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

Analysed By
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Chemist

Authorised Signatory
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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	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	AUGUST-2024(2nd Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4) 1999 RA 2014
9	Report Issued Date	:	02.09.2024
10	Report Number	:	GEMS/BMM/FM/2024-25/1889

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	3188	23.08.2024	24.08.2024	1520.22	2000
2.	Near Iron Ore Bottom Hopper	3186	23.08.2024	24.08.2024	1277.71	2000
3.	Iron Ore Screen	3187	23.08.2024	24.08.2024	906.14	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	3220	24.08.2024	24.08.2024	1518.67	2000
5.	Annual Cooler Pellet Discharge bin	3221	24.08.2024	24.08.2024	1154.17	2000
6.	Pellet Stock Yard	3222	24.08.2024	24.08.2024	1427.95	2000
III. Sponge Iron Division-1(kiln 1 & 2)						
7.	Control Room SID-I	3227	26.08.2024	27.08.2024	1226.57	2000
8.	Near Product bin	3290	27.08.2024	28.08.2024	1108.93	2000
9.	Coal Feeding Area	3291	27.08.2024	28.08.2024	948.86	2000
IV. Induction Furnace & Rolling Mill						
10.	IF Office	3269	26.08.2024	27.08.2024	441.40	2000
11.	TMT Stock Yard	3270	26.08.2024	27.08.2024	310.15	2000
12.	RML Gasifier	3271	26.08.2024	27.08.2024	382.78	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	3292	27.08.2024	28.08.2024	647.91	2000
14.	25 MW ACC	3305	28.08.2024	29.08.2024	547.07	2000
VI. Site Services						
15.	PGP- Coal handling system	3223	24.08.2024	24.08.2024	1247.40	2000
16.	IF Slag Crusher	3293	27.08.2024	28.08.2024	530.33	2000
17.	Main Gate	3306	28.08.2024	29.08.2024	307.72	2000
18.	Fly ash Dump	3163	22.08.2024	23.08.2024	1472.21	2000

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

Sl. NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03	GEMS-04	GEMS-05
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler
2	Make & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151
3	Serial No	RDS / 241-DTC-2020	RDS / 243-DTL-2020	RDS / 244-DTL-2020	RDS / 193-DTH-2019	RDS / 197-DTH-2019
4	Calibration Date	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

Analysed By
Priyanka B M
Chemist

Authorised Signatory
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Technical Manager



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

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

1	Name of the Industry	:	BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	:	WO/ADMIN/FY24/R018
3	Sample collected by	:	GLOBAL Environment & Mining Services
4	Particulars of sample collected	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	AUGUST-2024(1ST Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4): 1999 RA 2014
9	Report Issued Date	:	02.09.2024
10	Report Number	:	GEMS/BMM/FM/2024-25/1536

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)	2643	01.08.2024	02.09.2024	273.22	2000
2.	Near Cone Crusher	2645	01.08.2024	02.09.2024	1285.84	2000
3.	Concentrate Thickner	2644	01.08.2024	02.09.2024	673.82	2000
II. Pellet Plant						
4.	PR-6	2646	01.08.2024	02.09.2024	562.09	2000
5.	Annual Cooler Pellet Discharge bin	2647	01.08.2024	02.09.2024	1088.79	2000
6.	Additive Grinding Building	2665	02.09.2024	03.08.2024	821.46	2000
III. Sponge Iron Division -2 (Kiln 3 & 4)						
7.	Control room	2666	02.09.2024	03.08.2024	533.81	2000
8.	Near Weigh bridge (dispatch)	2667	02.09.2024	03.08.2024	400.10	2000
9.	Pellet Storage bin	2694	03.08.2024	03.08.2024	301.98	2000
10.	Transfer House area	2669	02.09.2024	03.08.2024	1576.90	2000
11.	Production Separation Bin-PSB	2668	02.09.2024	03.08.2024	1200.01	2000
IV. Sponge Iron Division -2 (Kiln 5 & 6)						
12.	Near Control room	2695	03.08.2024	03.08.2024	794.04	2000
13.	Near Coal Crusher	2697	03.08.2024	03.08.2024	1361.83	2000
14.	Near Product bin	2696	03.08.2024	03.08.2024	460.26	2000
15.	Coal Dryer	2698	03.08.2024	03.08.2024	1246.63	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	2743	05.08.2024	06.08.2024	542.40	2000
17.	Monsoon Shed (CPU)	2744	05.08.2024	06.08.2024	480.73	2000
18.	MCC Room (2 nd Gate)	2745	05.08.2024	06.08.2024	525.02	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	2746	05.08.2024	06.08.2024	334.20	2000
20.	2 nd gate weigh bridge Near Coal Screen	2782	06.08.2024	07.08.2024	443.35	2000
21.	CFBC boiler	2747	05.08.2024	06.08.2024	767.77	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	2783	06.08.2024	07.08.2024	1044.43	2000
23.	Near Coal storage Shed	2784	06.08.2024	07.08.2024	684.39	2000
24.	Dolochar Processing Area	2785	06.08.2024	07.08.2024	746.30	2000

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

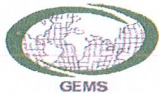
SL NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03	GEMS-04	GEMS-05
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler
2	Make & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151
3	Serial No	RDS / 241-DTC-2020	RDS / 243-DTL-2020	RDS / 244-DTL-2020	RDS / 193-DTH-2019	RDS / 197-DTH-2019
4	Calibration Date	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

Analysed By
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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	:	RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	:	JULY(2ND Fort Night)
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Method adopted	:	IS 5182 (Part 4): 1999 RA 2014
9	Report Issued Date	:	02.09.2024
10	Report Number	:	GEMS/BMM/FM/2024-25/1813

RESULTS

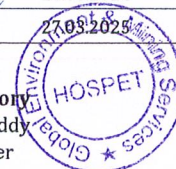
Sl. No.	Location / Plant	Sample Code	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-II						
1.	Ball Mill Area (Zero Meter)	3038	16.08.2024	17.08.2024	585.17	2000
2.	Near Cone Crusher	3040	16.08.2024	17.08.2024	546.92	2000
3.	Concentrate Thickner	3039	16.08.2024	17.08.2024	629.00	2000
II. Pellet Plant-I						
4.	PR-6	3041	16.08.2024	17.08.2024	209.52	2000
5.	Annual Cooler Pellet Discharge bin	3060	17.08.2024	17.08.2024	701.48	2000
6.	Additive Grinding Building	3061	17.08.2024	17.08.2024	478.93	2000
III. Sponge Iron Division -2 (Kiln 3 & 4)						
7.	Control room	3062	17.08.2024	17.08.2024	1000.69	2000
8.	Near Weigh bridge (dispatch)	3063	17.08.2024	17.08.2024	467.78	2000
9.	Pellet Storage bin	3094	19.08.2024	20.08.2024	1485.93	2000
10.	Transfer House area	3092	19.08.2024	20.08.2024	827.23	2000
11.	Production Separation Bin-PSB	3093	19.08.2024	20.08.2024	1238.25	2000
IV. Sponge Iron Division -2 (Kiln 5 & 6)						
12.	Near Control room	3095	19.08.2024	20.08.2024	1145.02	2000
13.	Near Coal Crusher	3107	20.08.2024	21.08.2024	517.56	2000
14.	Near Product bin	3106	20.08.2024	21.08.2024	799.44	2000
15.	Coal Drier	3108	20.08.2024	21.08.2024	832.54	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	3109	20.08.2024	21.08.2024	515.34	2000
17.	Monsoon Shed (CPU)	3135	21.08.2024	22.08.2024	839.17	2000
18.	MCC Room (2 nd Gate)	3136	21.08.2024	22.08.2024	1306.00	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	3137	21.08.2024	22.08.2024	1268.23	2000
20.	2 nd gate weigh bridge Near Coal Screen	3138	21.08.2024	22.08.2024	445.18	2000
21.	CFBC boiler	3185	23.08.2024	24.08.2024	757.77	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	3160	22.08.2024	23.08.2024	1011.38	2000
23.	Near Coal storage Shed	3161	22.08.2024	23.08.2024	703.23	2000
24.	CPP Dolochar Process Area	3162	22.08.2024	23.08.2024	1332.61	2000

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

SL NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03	GEMS-04	GEMS-05
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler
2	Make & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151
3	Serial No	RDS / 241-DTC-2020	RDS / 243-DTL-2020	RDS / 244-DTL-2020	RDS / 193-DTH-2019	RDS / 197-DTH-2019
4	Calibration Date	28.03.2024	28.03.2024	28.03.2024	28.03.2024	28.03.2024
5	Calibration Due Date	27.03.2025	27.03.2025	27.03.2025	27.03.2025	27.03.2025

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 | : AUGUST-2024 |
| 11 | Date of Sample Received | : 02.08.2024 & 17.08.2024 |
| 12 | Date of Sample Analysis | : 03.08.2024 & 19.08.2024 |
| 13 | Date of Sample Analysis completion | : 05.08.2024 & 20.08.2024 |
| 14 | Report Issued Date | : 02.09.2024 |
| 15 | Report Number | : ULR-TC532324000001549F |

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			02.08.2024	17.08.2024	
	Sample Code			2671	3065	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	26	28	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	69	67	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.02	6.12	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	329720	334780	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	285939	292074	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	28.68	29.39	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	162.0	149	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	37.0	34.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.024	0.021	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:

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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/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	: 2X100 TPD Sponge iron plant Kiln 1 & 2
10	Month of Sampling	: AUGUST-2024
11	Date of Sample Received	: 06.08.2024&26.08.2024
12	Date of Sample Analysis	: 07.08.2024&27.08.2024
13	Date of Sample Analysis completion	: 08.08.2024&28.08.2024
14	Report Issued Date	: 02.09.2024
15	Report Number	: ULR-TC532324000001636F

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
	Date of Monitoring			1 st Fort Night	2 nd Fort Night	
	Sample Code			06.08.2024	26.08.2024	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	28	27	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	175	172	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.29	7.41	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	82510	83767	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	54725	55933	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	16.77	19.29	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	189.0	196.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	43.0	54.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.163	0.184	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 : **AUGUST-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
Induction Furnace 1 & 2											
1	Induction Furnace 1	-	-	Electric Power	-	-	-	30	1.2	-	150
2	Induction Furnace 2	-	-		-	-	-	30	1.3	-	150

Sl. No	Induction Furnace 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Induction Furnace 1	-	-	-
2	Induction Furnace 2	-	-	-

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



Note:

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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 : **AUGUST-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) : 30.0
- 3 Stack Diameter (mtr) : 0.8

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
	Date of Monitoring			1 st Fort Night	2 nd Fort Night	
	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) (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, **INFERENCE:** The Measured Values are within the limits.

[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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TC-5323

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

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District
- 2 Customer Reference : WO/ADMIN/FY24/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 : **AUGUST-2024**
- 11 Date of Sample Received : 08.08.2024
- 12 Date of Sample Analysis : 09.08.2024
- 13 Date of Sample Analysis completion : 10.08.2024
- 14 Report Issued Date : **02.09.2024**
- 15 Report Number : **ULR-TC532324000001688F**

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
	Date of Monitoring			1 st Fort Night	2 nd Fort Night	
	Sample Code			08.08.2024	-	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	28	Shutdown	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	117		-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.20		-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	127206		-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	96853		-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	28.35		50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	196.0		NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	322.0		NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.218		NS

Note: NS- Not Specified. RA: Reaffirmed,

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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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 : **AUGUST-2024(1st Fort Night)**
- 10 Date of Sample Received : 12.08.2024
- 11 Date of Sample Analysis : 13.08.2024
- 12 Date of Sample Analysis completion : 13.08.2024
- 13 Report Issued Date : **02.09.2024**
- 14 Report Number : **ULR-TC532324000001738F**

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	12.08.2024	2945	-	28	34	5.26	25	0.40	15.60	50
2	Iron Ore Screen bin	12.08.2024	2944	-	32	36	5.51	30	0.40	18.74	50

Sl. No	Beneficiation Plant	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Iron Ore dump hopper	2382	2303	-
2	Iron Ore Screen bin	2494	2391	-

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

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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TC-5323

ANNEXURE-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 : **AUGUST-2024(1st Fort Night)**
- 10 Date of Sample Received : 13.08.2024
- 11 Date of Sample Analysis : 14.08.2024
- 12 Date of Sample Analysis completion : 14.08.2024
- 13 Report Issued Date : **02.09.2024**
- 14 Report Number : **ULR-TC532324000001757F**

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)	13.08.2024	2971	-	28	37	6.35	30	1.50	35.34	50
4	Main Crusher	13.08.2024	2972	-	28	33	5.09	25	0.50	13.15	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)	40425	38676	-
4	Main Crusher	3602	3440	-

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-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/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 : AUGUST-2024(1st Fort Night)
- 10 Date of Sample Received : 02.08.2024 & 03.08.2024 & 05.08.2024
- 11 Date of Sample Analysis : 03.08.2024 & 05.08.2024 & 06.08.2024
- 12 Date of Sample Analysis completion : 03.08.2024 & 05.08.2024 & 06.08.2024
- 13 Report Issued Date : 02.09.2024
- 14 Report Number : ULR-TC532324000001550F

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	02.08.2024	2672	-	27	35	5.13	6.5	0.50	23.00	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	03.08.2024	2700	-	28	36	5.32	3.0	0.30	28.17	50
7	Bentonite Powder bin top bag filter	03.08.2024	2701	-	28	35	5.81	3.0	0.30	25.76	50
8	H-4 Conveyor discharge bag filter	Shutdown	-	-	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	05.08.2024	2750	-	30	39	5.70	7.0	0.50	31.32	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	3627	3486	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1353	1299	-
7	Bentonite Powder bin top bag filter	1478	1422	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	4033	3836	-

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

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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TC-5323

ANNEXURE-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 : **AUGUST-2024(1st Fort Night)**
- 10 Date of Sample Received : 10.08.2024&12.08.2024
- 11 Date of Sample Analysis : 12.08.2024&13.08.2024
- 12 Date of Sample Analysis completion : 12.08.2024&13.08.2024
- 13 Report Issued Date : **02.09.2024**
- 14 Report Number : **ULR-TC532324000001727F**

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	10.08.2024	2923	---	29	36	5.79	30	1.20	23.06	50
11	Cooler-2 Discharge	10.08.2024	2924	---	31	35	5.56	30	1.20	26.64	50
12	Intermediate Bin & Blending	10.08.2024	2925	---	30	37	5.40	30	1.20	28.93	50
13	Product House	12.08.2024	2946	---	27	37	5.87	30	1.20	25.18	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	23572	22712	-
11	Cooler-2 Discharge	22624	21829	-
12	Intermediate Bin & Blending	21999	21076	-
13	Product House	23884	22881	-

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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Website : www.globalmining.in



TC-5323

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


Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/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 : **AUGUST-2024(2nd 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
Induction Furnance 1 & 2											
1	Induction Furnance 1	-	-	Electric	-	-	-	30	1.2	-	50
2	Induction Furnance 2	-	-	Power	-	-	-	30	1.3	-	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	-	-	-
2	Induction Furnance 2	-	-	-

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



Note:

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TC-5323

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

Analysis Report of Stack Emission

- Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
- Sample collected by : GLOBAL Environment & Mining Services, Hosapete
- Particulars of sample collected : Vayubodhak Stack sampler/ VBSS-2
Sl. No: Stack Monitoring Kit/ 032308
- Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- Discipline : Chemical
- Group : Atmospheric Pollution
- Sample Type : Stack Monitoring
- Month of Sampling : AUGUST-2024(2nd Fort Night)
- Date of Sample Received : 27.08.2024
- Date of Sample Analysis : 27.08.2024
- Date of Sample Analysis completion : 28.08.2024
- Report Issued Date : 02.09.2024
- Report Number : ULR-TC532324000001945F

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	27.08.2024	3294	---	26	33	5.18	25	0.40	19.79	50
2	Iron Ore Screen bin	27.08.2024	3295	---	27	34	5.57	30	0.40	16.43	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	2345	2281	-
2	Iron Ore Screen bin	2522	2445	-

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-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 : AUGUST-2024(2nd Fort Night)
- 10 Date of Sample Received : 27.08.2024
- 11 Date of Sample Analysis : 27.08.2024
- 12 Date of Sample Analysis completion : 28.08.2024
- 13 Report Issued Date : 02.09.2024
- 14 Report Number : ULR-TC532324000001947F

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
RMHS											
3	Screen, Coal Crusher(CPU)	-	-	-	-	-	-	30	1.50	-	50
4	Main Crusher	27.08.2024	3296	-	28	33	5.17	25	0.50	14.07	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)	-	-	-
4	Main Crusher	3657	3548	-

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 : AUGUST-2024 (2nd Fort Night)
- 10 Date of Sample Received : 17.08.2024 & 19.08.2024
- 11 Date of Sample Analysis : 19.08.2024 & 20.08.2024
- 12 Date of Sample Analysis completion : 19.08.2024 & 20.08.2024
- 13 Report Issued Date : 02.09.2024
- 14 Report Number : ULR-TC532324000001828F

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	17.08.2024	3066	---	30	36	5.50	6.5	0.50	24.92	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	19.08.2024	3096	---	27	35	5.19	3.0	0.30	26.55	50
7	Bentonite Powder bin top bag filter	19.08.2024	3097	---	28	36	5.56	3.0	0.30	22.68	50
8	H-4 Conveyor discharge bag filter	-	-	---	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	19.08.2024	3098	---	29	40	5.64	7.0	0.50	32.54	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	3887	3723	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1322	1272	-
7	Bentonite Powder bin top bag filter	1414	1357	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3991	3773	-

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 : **AUGUST-2024 (2nd Fort Night)**
- 10 Date of Sample Received : 24.08.2024 & 26.08.2024
- 11 Date of Sample Analysis : 26.08.2024 & 27.08.2024
- 12 Date of Sample Analysis completion : 26.08.2024 & 27.08.2024
- 13 Report Issued Date : **02.09.2024**
- 14 Report Number : **ULR-TC532324000001910F**

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	24.08.2024	3225	---	28	35	5.61	30	1.20	25.60	50
11	Cooler-2 Discharge	24.08.2024	3226	---	27	34	5.40	30	1.20	28.07	50
12	Intermediate Bin & Blending	26.08.2024	3227	---	28	34	5.69	30	1.20	23.59	50
13	Product House	26.08.2024	3228	---	29	36	5.56	30	1.20	26.75	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	22831	22000	-
11	Cooler-2 Discharge	21970	21228	-
12	Intermediate Bin & Blending	23175	22383	-
13	Product House	22634	21708	-

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

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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TC-5323

ANNEXURE-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/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 : **Pellet Plant-2 ESP**
- 10 Month of Sampling : **AUGUST-2024**
- 11 Date of Sample Received : 01.08.2024 & 16.08.2024
- 12 Date of Sample Analysis : 02.08.2024 & 17.08.2024
- 13 Date Sample Analysis Completion : 03.08.2024 & 19.08.2024
- 14 Report Issued Date : **02.09.2024**
- 15 Report Number : **ULR-TC532324000001537F**

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	
				01.08.2024	16.08.2024	
	Date of Monitoring			2648	3042	
	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	73	71	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.17	6.29	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	337679	344423	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	289571	296874	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	34.71	34.81	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	296	257	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm ³	37	24	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.026	0.031	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 | : | AUGUST-2024 |
| 11 | Date of Sample Received | : | 03.08.2024 & 24.08.2024 |
| 12 | Date of Sample Analysis | : | 05.08.2024 & 26.08.2024 |
| 13 | Date Sample Analysis Completion | : | 06.08.2024 & 27.08.2024 |
| 14 | Report Issued Date | : | 02.09.2024 |
| 15 | Report Number | : | ULR-TC532324000001569F |

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	
				03.08.2024	24.08.2024	
	Date of Monitoring			2699	3224	
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	29	27	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	130	126	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.85	7.03	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	174377	178828	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	128587	133245	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	30.47	29.44	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	182	108	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm ³	28	22.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.106	0.098	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:

- 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



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/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 : **SID Axis 5&6**
- 10 Month of Sampling : **AUGUST-2024**
- 11 Date of Sample Received : 05.08.2024&20.08.2024
- 12 Date of Sample Analysis : 06.08.2024&21.08.2024
- 13 Date Sample Analysis Completion : 07.08.2024&22.08.2024
- 14 Report Issued Date : **02.09.2024**
- 15 Report Number : **ULR-TC532324000001606F**

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			05.08.2024 2748	20.08.2024 3110	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	28	28	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	133	131	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.32	7.19	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	186357	182964	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	136514	134372	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	31.27	34.10	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	369	474	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	76	84	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.098	0.107	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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Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Vayubodhan Stack sampler/ VBSS2 Sl.No: Stack Monitoring Kit/ 032308
5	Instrument Details	: Calibration Date: 28.03.2024 Calibration Due Date: 27.03.2025
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Sample Type	: Stack Monitoring
9	Sampling Location	: 1X70 MW-CFBC Boiler ESP
10	Month of Sampling	: AUGUST-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)	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			-	-	
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:** The Measured Values are within the limits.

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

Note:

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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/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	:	2X70 MW CFBC Boiler ESP
10	Month of Sampling	:	AUGUST-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

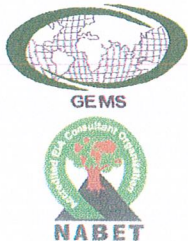
Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
	Date of Monitoring			1 st Fort Night	2 nd Fort Night	
	Sample Code			-	-	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	Shutdown	Shutdown	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C			-
3	Velocity of Fuel Gas	IS: 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

[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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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 : **AUGUST-2024(1st Fort Night)**
- 10 Date of Sample Received : 12.08.2024&13.08.2024
- 11 Date of Sample Analysis : 13.08.2024&14.08.2024
- 12 Date Sample Analysis Completion : 13.08.2024&14.08.2024
- 13 Report Issued Date : **02.09.2024**
- 14 Report Number : **ULR-TC532324000001736F**

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	12.08.2024	2943	---	33	37	5.69	30	1.20	15.59	50
2	Iron Ore Screening	13.08.2024	2970	Coal	27	34	5.38	30	0.90	17.08	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	23181	22140	-
2	Iron Ore Screening	12320	11907	-

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-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	: AUGUST-2024(1 st Fort Night)
10	Date of Sample Received	: 01.08.2024&02.08.2024
11	Date of Sample Analysis	: 02.08.2024&03.08.2024
12	Date Sample Analysis Completion	: 02.08.2024&03.08.2024
13	Report Issued Date	: 02.09.2024
14	Report Number	: ULR-TC532324000001538F

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	01.08.2024	2649	---	28	35	5.20	6.5	0.5	25.66	50
4	Lime & Bentonite Powder bin top bag filter	01.08.2024	2650	---	28	36	5.73	6	0.35	25.38	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	02.08.2024	2670	---	28	41	5.36	20	0.5	33.83	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 bag filter	-	-	-
7	RP-6 Conveyor bag Filter	-	-	-
8	Pellet discharge bin bag filter	3791	3576	-

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

INFERENCE: The measured values are within the limits

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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

Analysis Report of Stack Emission

- Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- Customer Reference : WO/ADMIN/FY24/RO18
- Sample collected by : GLOBAL Environment & Mining Services
- Particulars of sample collected : Vayubodhan Stack sampler/ VBSS2
Sl.No:Stack Monitoring Kit/ 032308
- Instrument Details : Calibration Date: 28.03.2024
Calibration Due Date: 27.03.2025
- Discipline : Chemical
- Group : Atmospheric Pollution
- Sample Type : Stack Monitoring
- Month of Sampling : **AUGUST-2024(1st Fort Night)**
- Date of Sample Received : 05.08.2024,06.08.2024,07.08.2024&08.08.2024
- Date of Sample Analysis : 06.08.2024,07.08.2024,08.08.2024&09.08.2024
- Date Sample Analysis Completion : 06.08.2024,07.08.2024,08.08.2024&09.08.2024
- Report Issued Date : **02.09.2024**
- Report Number : **ULR-TC532324000001607F**

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	05.08.2024	2749	---	31	36	5.80	30	1.2	29.07	50
10	Cooler Discharge -2	07.08.2024	2787	---	30	37	5.50	30	1.2	32.79	50
11	Coal stock house	06.08.2024	2788	---	29	35	5.24	30	1.2	14.24	50
12	PSB 1 System-1	07.08.2024	2826	---	27	36	5.29	30	1.2	34.34	50
13	PSB 1 System-2	07.08.2024	2827	---	28	37	5.71	30	1.2	34.79	50
14	PSB 2 System-1 MCC	07.08.2024	2828	---	30	38	5.86	30	1.2	36.24	50
15	PSB 1 System-2 Road	07.08.2024	2829	---	29	36	5.40	30	1.2	34.49	50
16	Junction House Old & New	08.08.2024	2863	---	30	37	5.93	30	1.2	39.29	50
17	Storage Bunker	08.08.2024	2864	---	29	36	5.58	30	1.2	29.94	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	23619	22670	-
10	Cooler Discharge -2	22406	21428	-
11	Coal stock house	21356	20548	-
12	PSB 1 System-1	21539	20761	-
13	PSB 1 System-2	23241	22318	-
14	PSB 2 System-1 MCC	20115	19353	-
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-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 : **AUGUST-2024(1st Fort Night)**
- 10 Date of Sample Received : 09.08.2024&10.08.2024
- 11 Date of Sample Analysis : 10.08.2024&12.08.2024
- 12 Date Sample Analysis Completion : 10.08.2024&12.08.2024
- 13 Report Issued Date : **02.09.2024**
- 14 Report Number : **ULR-TC532324000001708F**

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	09.08.2024	2897	---	27	36	5.53	30	1.2	35.35	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	09.08.2024	2898	---	28	37	5.68	30	1.2	36.40	50
21	DE 8 & 12 I-Bin, (Stand By)	09.08.2024	2899	---	30	38	6.08	30	1.9	35.50	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	09.08.2024	2900	---	31	38	5.96	30	1.9	38.20	50
23	Coal Dryer	10.08.2024	2922	---	28	40	6.04	27	1.2	32.93	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	-

INFERENCE: The Measured Values are within the limits.


Analysed By
Priyanka B M
Chemist


Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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



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	: AUGUST-2024(2ndFort Night)
10	Date of Sample Received	: 30.08.2024
11	Date of Sample Analysis	: 31.08.2024
12	Date Sample Analysis Completion	: 31.08.2024
13	Report Issued Date	: 02.09.2024
14	Report Number	: ULR-TC532324000001979F

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	30.08.2024	3336	---	27	35	5.29	30	0.90	15.40	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	12116	11673	-

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:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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Website : www.globalmining.in



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	: AUGUST-2024(2nd Fort Night)
10	Date of Sample Received	: 16.08.2024&17.08.2024
11	Date of Sample Analysis	: 17.08.2024&18.08.2024
12	Date Sample Analysis Completion	: 17.08.2024&18.08.2024
13	Report Issued Date	: 02.09.2024
14	Report Number	: ULR-TC532324000001815F

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	16.08.2024	3043	---	28	35	5.39	6.5	0.5	23.21	50
4	Lime & Bentonite Powder bin top bag filter	16.08.2024	3044	---	29	34	5.76	6	0.35	21.68	50
5	AGB De dusting Bag Filter	-	-	---	-	-	-	6	0.6	-	50
6	Powder Coal main bag filter	-	-	---	-	-	-	6	0.6	-	50
7	RP-6 Conveyor bag Filter	-	-	---	-	-	-	6	0.3	-	50
8	Pellet discharge bin bag filter	17.08.2024	3064	---	29	39	5.28	20	0.5	33.13	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	3734	3543	-

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	: AUGUST-2024(2nd Fort Night)
10	Date of Sample Received	: 21.08.2024, 22.08.2024, 23.08.2024
11	Date of Sample Analysis	: 22.08.2024, 23.08.2024, 24.08.2024
12	Date Sample Analysis Completion	: 22.08.2024, 23.08.2024, 24.08.2024
13	Report Issued Date	: 02.09.2024
14	Report Number	: ULR-TC532324000001865F

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	21.08.2024	3139	Coal	30	36	5.72	30	1.2	28.93	50
10	Cooler Discharge -2	22.08.2024	3164	Coal	27	36	5.66	30	1.2	31.27	50
11	Coal stock house	22.08.2024	3166	Coal	28	35	5.38	30	1.2	11.41	50
12	PSB 1 System-1	22.08.2024	3165	Coal	28	37	5.89	30	1.2	35.44	50
13	PSB 1 System-2	22.08.2024	3167	Coal	28	38	5.82	30	1.2	34.02	50
14	PSB 2 System-1 MCC	23.08.2024	3189	Coal	27	37	5.72	30	1.2	35.68	50
15	PSB 1 System-2 Road	23.08.2024	3190	Coal	28	39	5.46	30	1.2	33.06	50
16	Junction House Old & New	23.08.2024	3191	Coal	28	39	6.07	30	1.2	36.69	50
17	Storage Bunker	23.08.2024	3192	Coal	27	37	5.62	30	1.2	28.55	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	23273	22294	-
10	Cooler Discharge -2	23039	22157	-
11	Coal stock house	21928	21143	-
12	PSB 1 System-1	23964	22918	-
13	PSB 1 System-2	23699	22583	-
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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Website : www.globalmining.in



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 : AUGUST-2024(2nd Fort Night)
- 10 Date of Sample Received : 20.08.2024&21.08.2024
- 11 Date of Sample Analysis : 21.08.2024&22.08.2024
- 12 Date Sample Analysis Completion : 21.08.2024&22.08.2024
- 13 Report Issued Date : 02.09.2024
- 14 Report Number : ULR-TC532324000001845F

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	20.08.2024	3111	---	30	36	5.24	30	1.20	32.10	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	20.08.2024	3112	---	29	36	5.78	30	1.20	30.69	50
21	DE 8 & 12 I-Bin, (Stand By)	21.08.2024	3140	---	28	36	6.16	30	1.90	34.77	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	21.08.2024	3141	---	29	37	5.85	30	1.90	36.65	50
23	Coal Dryer	21.08.2024	3142	---	30	39	6.13	30	1.20	37.26	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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TC-5323

ANNEXURE-38
GEMS-LD/TF/08/01

NOISE LEVEL MONITORING REPORT

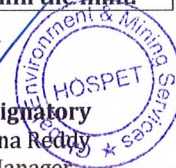
Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Noise Level Monitoring
Particulars of Sample Collected : Lutron: SL- 4023SD
Sl. No: Q679952
Instrument Details : Calibration Date: 02.11.2023
Due Calibration: 01.11.2024
Month : **AUGUST-2024**
Report Issue Date : **02.09.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000001540F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)		
			Day Time		Standard
			Min	Max	
1	Main Gate	01.08.2024	49.6	56.1	75
2	Near ATM	01.08.2024	47.6	53.6	75
3	Transit House	02.08.2024	58.0	64.8	75
4	CAAQMS Station	02.08.2024	49.2	56.8	75
5	Gunda Road	03.08.2024	53.4	65.6	75
6	Gunda Railway Station	03.08.2024	54.2	65.0	75
7	Bagging Shed	05.08.2024	58.2	68.2	75
8	Railway Siding	05.08.2024	67.3	74.6	75
9	4th Gate	06.08.2024	52.8	59.6	75
10	Bricks Plant	06.08.2024	63.1	70.2	75
11	Kempuhalla (Wagon Tippler)	07.08.2024	52.6	59.6	75
12	Danapura Bridge	07.08.2024	59.2	67.8	75
13	2nd Gate	08.08.2024	52.8	62.8	75
14	Project Store	08.08.2024	46.2	56.4	75
15	Dispatch (Truck Parking Area)	09.08.2024	63.4	71.4	75

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

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

[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

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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: 01.11.2024
Month : **AUGUST-2024**
Report Issue Date : **02.09.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000001817F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)		
			Day Time		Standard
			Min	Max	
1	Main Gate	16.08.2024	51.8	59.2	75
2	Near ATM	16.08.2024	47.6	55.0	75
3	Transit House	17.08.2024	56.2	62.4	75
4	CAAQMS Station	17.08.2024	49.8	57.2	75
5	Gunda Road	19.08.2024	49.2	58.1	75
6	Gunda Railway Station	19.08.2024	54.6	66.1	75
7	Bagging Shed	20.08.2024	61.5	72.4	75
8	Railway Siding	20.08.2024	66.0	72.6	75
9	4th Gate	21.08.2024	53.1	58.2	75
10	Bricks Plant	21.08.2024	56.2	70.6	75
11	Kempuhalla (Wagon Tippler)	22.08.2024	46.4	57.8	75
12	Danapura Bridge	22.08.2024	62.9	67.8	75
13	2nd Gate	23.08.2024	56.4	63.5	75
14	Project Store	23.08.2024	46.6	50.8	75
15	Dispatch (Truck Parking Area)	24.08.2024	60.6	70.6	75

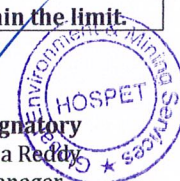
Note : Each Location above the Noise Level taken Readings 15 Minutes.

INFERENCE

As per CPCB Standards,

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

Handwritten Signature
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager



Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
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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/RO18 - 450000125
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Noise Level Monitoring
Particulars of Sample Collected : Lutron: SL- 4023SD
Sl. No: Q679953
Instrument Details : Calibration Date: 02.11.2023
Due Calibration: 01.11.2024
Month : **AUGUST-2024**
Report Issue Date : **02.09.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000001613F**

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	05.08.2024	46.8	52.6	50.34	55	40.2	43.4	40.82	45
2	Mariyammana Halli	06.08.2024	48.2	53.8	51.28		39.8	43.8	41.34	
3	Hanumana Halli	05.08.2024	46.4	52.1	51.12		40.1	42.1	39.82	
4	Galemmanagudi	06.08.2024	48.6	54.3	53.86		39.8	43.6	41.24	
5	G.Nagalapura Village	07.08.2024	45.8	53.2	51.74		37.6	40.8	39.06	
6	Gunda Tanda Village	08.08.2024	42.6	52.6	50.18		38.3	40.6	38.74	

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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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/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	: 3021
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: ULR-TC532324000001796F

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)	-	7.27	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	3020	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1812	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	368.61	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	312.25	-	-
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	185.76	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	32.31	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	597.4	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	525.48	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.64	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	20.16	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	583.0	200	600

Note:

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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	0.16	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 23 rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.01	0.05	NR

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

INFERENCE	As per Standards IS: 10500:2012 Report Status: - Measured Values for the above parameters are within the limits.
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Analysed By
 Priyanka B M
 Chemist

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/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Grab Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical/Biological
- 7 Group : Pollution & Environment
- 8 Sample Type : Ground Water
- 9 Sample Code : 3021
- 10 Date of Sampling : 14.08.2024
- 11 Sample Received : 14.08.2024
- 12 Date of Analysis : 14.08.2024
- 13 Date of Analysis Completion : 21.08.2024
- 14 Report Issue Date : 02.09.2024
- 15 Report Number : GEMS/WATER/2024-2025/1796

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 : 1622 : 1981	1 CFU/ 100 ml	Absent	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	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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e-mail : gems_hpt@yahoo.com
Website : www.globalmining.in



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 : **3023**
- 10 Date of Sampling : 14.08.2024
- 11 Sample Received : 14.08.2024
- 12 Date of Analysis : 14.08.2024
- 13 Date of Analysis Completion : 21.08.2024
- 14 Report Issue Date : **02.09.2024**
- 15 Report Number : **ULR-TC532324000001798F**

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)	-	7.50	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	3660	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	2196	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	418.37	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	482.3	-	-
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	132.09	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	59.91	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	576.8	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl-	mg/L	602.65	250	1000
14.	Fluoride as F	APHA 23 rd 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 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	21.35	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	594.0	200	600

Note:

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ANNEXURE-42

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	0.19	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: 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/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Grab Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical/Biological
- 7 Group : Pollution & Environment
- 8 Sample Type : Ground Water
- 9 Sample Code : **3023**
- 10 Date of Sampling : 14.08.2024
- 11 Sample Received : 14.08.2024
- 12 Date of Analysis : 14.08.2024
- 13 Date of Analysis Completion : 21.08.2024
- 14 Report Issue Date : **02.09.2024**
- 15 Report Number : **GEMS/WATER/2024-2025/1798**

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 : 1622 : 1981	1 CFU/ 100 ml	Absent	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	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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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	: 3024
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: ULR-TC532324000001799F

Results

Sl. No	Parameters	Protocol	Unit	Galemmana Gudi Village (GW3)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.81	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	2650	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1590	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	249.23	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	279.7	-	-
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	152.73	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	49.88	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	587.1	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	467.63	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	1.30	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	18.25	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	528.0	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	0.17	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: 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.

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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e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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

Analysis Report of Water Quality Data

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 3024
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: GEMS/WATER/2024-2025/1799

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 : 1622 : 1981	1 CFU/ 100 ml	Absent	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	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

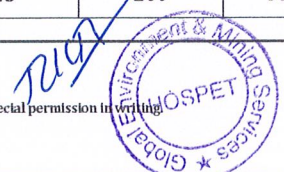
- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Grab Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical
- 7 Group : Pollution & Environment
- 8 Sample Type : Ground Water
- 9 Sample Code : **3022**
- 10 Date of Sampling : 14.08.2024
- 11 Sample Received : 14.08.2024
- 12 Date of Analysis : 14.08.2024
- 13 Date of Analysis Completion : 21.08.2024
- 14 Report Issue Date : **02.09.2024**
- 15 Report Number : **ULR-TC532324000001797F**

Results

Sl. No	Parameters	Protocol	Unit	Mariyammana Halli Village (GW4)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.12	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	2750	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1650	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	308.24	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	298.65	-	-
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	123.84	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	54.91	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	535.6	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	491.74	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.52	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	16.52	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	550.0	200	600

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

Note: GW4: Mariyammanahalli Village. NR-No relaxation

INFERENCE	As per Standards IS: 10500:2012 Report Status: - Measured Values for the above parameters are within the limit.
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Analysed By
Priyanka B M
 Chemist


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/RO18
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 3022
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: GEMS/WATER/2024-2025/1797

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 : 1622 : 1981	1 CFU/ 100 ml	Absent	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	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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e-mail : gems_hpt@yahoo.com
Website : www.globalmining.in



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	: 3025
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: ULR-TC532324000001800F

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)	-	7.97	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	900	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	540	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	47.28	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	117.1	-	-
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	84.16	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	19.34	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	290.0	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	67.49	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	1.21	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	6.53	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	275.0	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	0.11	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.220	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.109	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: GW5: Gunda Thanda. NR-No relaxation.

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

Analysed By
Priyanka B M
 Chemist

Authorised Signatory
K. Ramakrishna Reddy
 Technical Manager

Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
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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/RO18
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 3025
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: GEMS/WATER/2024-2025/1800

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 : 1622 : 1981	1 CFU/ 100 ml	Absent	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	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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- Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



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TC-5323

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

Analysis Report of Water Quality Data

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18 - 450000125
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Grab Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical
- 7 Group : Pollution & Environment
- 8 Sample Type : Ground Water
- 9 Sample Code : **3026**
- 10 Date of Sampling : 14.08.2024
- 11 Sample Received : 14.08.2024
- 12 Date of Analysis : 14.08.2024
- 13 Date of Analysis Completion : 21.08.2024
- 14 Report Issue Date : **02.09.2024**
- 15 Report Number : **ULR-TC532324000001801F**

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)	-	8.12	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	1050	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	630	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	44.68	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	131.05	-	-
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	60.12	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	16.93	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	220.0	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	91.59	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.23	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	8.96	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	418.0	200	600

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-46

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	0.10	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	0.175	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.099	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: 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.
------------------	----------------------------------------------------------------------------------------------------------------------------------

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-46
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18
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	: 3026
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: GEMS/WATER/2024-2025/1801

Results

Sl. No	Parameters	Protocol	Unit	G. Naglapura (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 : 1622 : 1981	1 CFU/ 100 ml	Absent	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Absent	Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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TC-5323

ANNEXURE-47
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

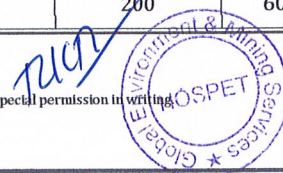
1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18 - 450000125
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical
7	Group	: Pollution & Environment
8	Sample Type	: RO Drinking Water
9	Sample Code	: 3027
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: ULR-TC532324000001802F

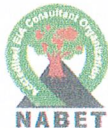
Results

Sl. No	Parameters	Protocol	Unit	RO Drinking Water	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.93	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	120	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	72	500	2000
4.	Turbidity (NTU)	APHA 23 rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.0	1	5
5.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	10.41	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	14.25	-	-
9.	Potassium as K	APHA 23 rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.00	-	-
10.	Calcium as Ca	APHA 23 rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	4.00	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	4.86	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	30.0	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	24.10	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.83	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23 rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	2.52	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	22.0	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	0.09	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/RO18
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical/Biological
7	Group	: Pollution & Environment
8	Sample Type	: RO Drinking Water
9	Sample Code	: 3027
10	Date of Sampling	: 14.08.2024
11	Sample Received	: 14.08.2024
12	Date of Analysis	: 14.08.2024
13	Date of Analysis Completion	: 21.08.2024
14	Report Issue Date	: 02.09.2024
15	Report Number	: GEMS/RO/2024-2025/1802

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 : 1622 : 1981	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	: 14.08.2024
10	Sample Received	: 14.08.2024
11	Date of Analysis	: 14.08.2024
12	Date of Analysis Completion	: 20.08.2024
13	Report Issue Date	: 02.09.2024
14	Report Number	: ULR-TC532324000001793F

Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
		Sample code	-	3018	3019	3020	
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.37	7.36	7.05	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	10.0	8.0	6.0	<20
3.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	6.0	8.0	4.0	<10
4.	Chemical Oxygen Demand as COD	APHA 23 rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	39.2	58.8	19.6	<50
5.	Oil & Grease	APHA 23 rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	6.0	6.0	2.0	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 : 14.08.2024
- 10 Sample Received : 14.08.2024
- 11 Date of Analysis : 14.08.2024
- 12 Date of Analysis Completion : 20.08.2024
- 13 Report Issue Date : 02.09.2024
14. Report Number : GEMS/RO/2024-2025/1793

Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
		Sample code	-	3018	3019	3020	
1.	Color	APHA 23 RD Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	5	2	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-2014, Nesslerization method	mg/L	1.68	0.84	1.26	-

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

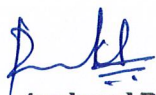
1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18 - 450000125
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Composite Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical
7	Group	: Pollution & Environment
8	Sample Type	: Waste Water
9	Date of Sampling	: 14.08.2024
10	Sample Received	: 14.08.2024
11	Date of Analysis	: 14.08.2024
12	Date of Analysis Completion	: 21.08.2024
13	Report Issue Date	: 02.09.2024
14	Report Number	: ULR-TC532324000001803F

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		
				3028	3029	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.72	8.86	6.5 to 9.0
2.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	16.0	12.0	100
3.	Chemical Oxygen Demand as COD	APHA 23rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	19.6	98.0	250
4.	Oil & Grease	APHA 23rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	2.0	4.0	10

Note: BDL-Below detectable Limit.

INFERENCE: The Measured values are within the Limit.


Analysed By
Priyanka B M
Chemist


Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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ANNEXURE-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 : 14.08.2024
- 10 Sample Received : 14.08.2024
- 11 Date of Analysis : 14.08.2024
- 12 Date of Analysis Completion : 20.08.2024
- 13 Report Issue Date : **02.09.2024**
- 14 Report Number : **GEMS/SW/2024-2025/1805**

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS -B
				Danayakanakere Upstream	Danayakanakere Downstream	
		Sample code		3030	3031	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.16	7.11	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	0.41	0.31	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	6.2	>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 : 15185 : 2016	MPN/ 100 ml	Absent	Absent	500
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	Absent	Absent	-


Analysed By
 Priyanka B M
 Chemist


Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager

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



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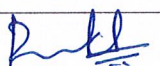
Website: www.globalmining.in

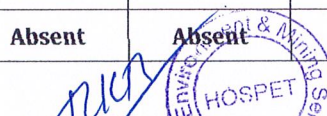
ANNEXURE-51
GEMS-LD/TF/23/01

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/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Composite Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical
- 7 Group : Pollution & Environment
- 8 Sample Type : **Surface Water**
- 9 Date of Sampling : 14.08.2024
- 10 Sample Received : 14.08.2024
- 11 Date of Analysis : 14.08.2024
- 12 Date of Analysis Completion : 20.08.2024
- 13 Report Issue Date : **02.09.2024**
14. Report Number : **GEMS/SW/2024-2025/1807**

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS -B
				KempuHalla Upstream	KempuHalla Downstream	
Sample code				3032	3033	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.94	7.97	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	2.0	3.0
3.	Fluorides as F	APHA 23 RD Edition 4500F D (Pg. No.4-90 to 4-91)	mg/L	1.29	1.47	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	6.6	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 : 15185 : 2016	MPN/ 100 ml	Absent	Absent	500
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	Absent	Absent	-


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

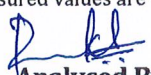
Analysis Report of Surface Water Quality Data

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Composite Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical/Biological
- 7 Group : Pollution & Environment
- 8 Sample Type : **Surface Water**
- 9 Date of Sampling : 14.08.2024
- 10 Sample Received : 14.08.2024
- 11 Date of Analysis : 14.08.2024
- 12 Date of Analysis Completion : 20.08.2024
- 13 Report Issue Date : **02.09.2024**
14. Report Number : **GEMS/SW/2024-2025/1809**

Sl. No.	Parameters	Protocol	Unit	Results	IS 2296 -1982 CLASS -B
				Tungabhadra dam	
Sample Code				3034	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.03	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	0.00	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	6.6	>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 Coliform Organisms,				
	Total Coli forms	IS : 15185 : 2016	MPN/ 100 ml	Absent	500
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	Absent	-

Note: BDL-Below detectable Limit

INFERENCE: The measured values are within the Limit.


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 Chemist


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 Technical Manager



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