



BMM Ispat Ltd.,

ENVIRONMENTAL MONITORING REPORT



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

JANUARY - 2024

Prepared by



GLOBAL ENVIRONMENT & MINING SERVICES

NABL & MOEFCC Recognized Laboratory

(Consulting Engineers, Mine Designers, Geologists & Surveyors)

3rd main road, Basaveswara badavane

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Tel : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in

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 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, Noise Monitoring, Water Analysis & Stack monitoring 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: 06.02.2024


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. UdaichandSinghi.

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

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

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

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



1.2 PROMOTERS OF THE PROJECT

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

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

BMM ISPAT LIMITED

(Registered Office & Works)

#114, Danapur

Hosapete - 583 222

Vijayanagara Dist., Karnataka

Phone +91 08394-264000, +91 9686550808/09

Fax - 08394 264010

1.3 Site Location

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

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

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

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

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

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

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

2.0 SCOPE AND METHODOLOGY

2.1 PREAMBLE

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

2.2 AMBIENT AIR QUALITY

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

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

Purpose

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

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

Principle of the method

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

Sampling

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

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

Analysis

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

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

Purpose

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

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

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

Principle

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

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

2.2.3 **Sulphur Dioxide (SO₂)**

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

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

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

Sampling

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

Analysis

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

2.2.4 **Nitrogen Di Oxide (NO₂):**

Purpose

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

Principle of the method

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

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

2.2.5 **Ozone (Chemical method)**

Purpose

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

Principle of the method

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

Sampling

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

Analysis

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

2.2.6 Ammonia(NH₃)**Purpose**

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

Principle of the method

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

Sampling

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

Analysis

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

2.2.7 Benzo(a)Pyrene**Purpose**

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

Principle of the Method

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

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

Sampling

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

Sample Processing

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

Filtration

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

Sample injection

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

2.2.8

Benzene

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

Principle of the Method

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

Gas Chromatograph

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

Sampling

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

Analytical Procedure

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

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

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

Non dispersive Infrared (NDIR) Gas Analyser

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

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

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

Purpose

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

Principle of the method

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

Sampling procedure

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

3.0 Fugitive Emission Monitoring

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

4.0 Stack Monitoring

Stack Monitoring was Collected 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 isokinetic 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 71.73, 18.75, 9.78 & 10.85 $\mu\text{g}/\text{m}^3$ 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 59.05, 14.74, 8.06 & 9.71 $\mu\text{g}/\text{m}^3$ 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 73.16, 17.44, 10.67 & 12.53 $\mu\text{g}/\text{m}^3$ 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 64.67, 17.42, 9.13 & 11.08 $\mu\text{g}/\text{m}^3$ 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 48.05, 13.97, 7.78 & 8.64 $\mu\text{g}/\text{m}^3$ 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 56.45, 14.80, 7.97 & 9.72 $\mu\text{g}/\text{m}^3$ 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 232.18 $\mu\text{g}/\text{m}^3$, maximum value 1972.46 $\mu\text{g}/\text{m}^3$ and average value 1027.11 $\mu\text{g}/\text{m}^3$. 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 5.02 mg/Nm^3 , Maximum Value 38.30 mg/Nm^3 & Average Value 27.14 mg/Nm^3 . 1st& 2nd Fortnight Results are given in **Annexure-11 to Annexure-37**.

5.3 AMBIENT 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 & Night time noise level values were ranging between 45.2 to 70.8 dB (A) and 37.2 to 67.2 dB (A). The noise level status is given in **Annexure-38 to Annexure-39**.

5.4 Water Sample Collected at 13 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.



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : JANUARY-2024
Location : A1-Danapur Village
Duration of Monitoring : 24 Hour
Report Issued Date : 06.02.2024
Report Number : ULR-TC532324000001926F

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
04.01.2024	05.01.2024	4699	64.30	100	16.18	60	10.27	80	12.48	80
05.01.2024	06.01.2024	4719	89.54		21.23		11.83		12.91	
08.01.2024	09.01.2024	4779	61.53		18.30		8.76		10.08	
09.01.2024	10.01.2024	4795	65.78		15.45		11.22		11.38	
18.01.2024	19.01.2024	4945	79.23		17.46		9.60		10.01	
19.01.2024	20.01.2024	4986	65.73		19.01		7.09		9.52	
22.01.2024	23.01.2024	5030	69.44		20.68		9.94		9.39	
23.01.2024	24.01.2024	5043	78.32		21.67		9.51		11.05	
Average			71.73		18.75		9.78		10.85	

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	08.07.2023	06.03.2023
5	Calibration Due Date	24.07.2024	05.03.2024

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 & Thinblades 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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 : JANUARY-2024
Location : A1-Danapur Village
Duration of Monitoring : 1 Hour
Report Issued Date : 06.02.2024

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.01.2024	4699	<0.01	4.0
2	05.01.2024	4719	<0.01	
3	08.01.2024	4779	<0.01	
4	09.01.2024	4795	<0.01	
5	18.01.2024	4945	0.12	
6	19.01.2024	4986	0.12	
7	22.01.2024	5030	<0.01	
8	23.01.2024	5043	<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	08.07.2023
5	Calibration Due Date	07.07.2024

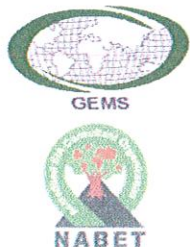
INFERENCE	As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit
-----------	---

Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : JANUARY-2024
Location : AZ-Mariyammanahalli Village
Duration of Monitoring : 24 Hour
Report Issued Date : 06.02.2024
Report Number : ULR-TC532324000001886F

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS:5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
01.01.2024	02.01.2024	4625	60.99	100	14.11	60	9.43	80	11.54	80
02.01.2024	03.01.2024	4654	59.48		16.00		6.60		8.51	
08.01.2024	09.01.2024	4781	61.29		13.08		8.21		9.74	
09.01.2024	10.01.2024	4805	58.71		19.11		7.28		8.87	
16.01.2024	17.01.2024	4903	62.71		13.50		9.49		10.84	
17.01.2024	18.01.2024	4924	53.27		16.58		6.19		7.16	
22.01.2024	23.01.2024	5035	50.04		10.58		8.68		10.82	
23.01.2024	24.01.2024	5055	65.93		14.98		8.61		10.22	
Average			59.05		14.74		8.06		9.71	

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	15.05.2023	06.03.2023
5	Calibration Due Date	14.05.2024	05.03.2024

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 DGP's survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2024
 Location : A2-Mariyammanahalli Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 06.02.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	01.01.2024	4625	0.12	4.0
2	02.01.2024	4654	0.10	
3	08.01.2024	4781	0.16	
4	09.01.2024	4805	0.11	
5	16.01.2024	4903	0.10	
6	17.01.2024	4924	<0.01	
7	22.01.2024	5035	<0.01	
8	23.01.2024	5055	<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	08.07.2023
5	Calibration Due Date	07.07.2024

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

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : JANUARY-2024
Location : A3-Hanumanahalli Village
Duration of Monitoring : 24 Hour
Report Issued Date : 06.02.2024
Report Number : ULR-TC532324000001927F

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
04.01.2024	05.01.2024	4701	67.83	100	16.25	60	11.33	80	12.60	80
05.01.2024	06.01.2024	4721	77.93		15.73		10.92		14.01	
08.01.2024	09.01.2024	4782	75.75		17.44		9.13		10.65	
09.01.2024	10.01.2024	4807	80.67		22.44		9.15		11.66	
18.01.2024	19.01.2024	4902	68.27		14.32		11.72		13.51	
19.01.2024	20.01.2024	4923	65.44		19.31		10.05		11.98	
22.01.2024	23.01.2024	5036	84.49		15.64		13.30		14.76	
23.01.2024	24.01.2024	5042	64.93		18.41		9.80		11.06	
Average			73.16		17.44		10.67		12.53	

SL NO	INSTRUMENT DETAILS		
1	Instrument Name	Respirable Dust Sampler (RDS)	Fine Particulate Sampler (FPS)
2	Make & Model	Enviro instruments / EI-142 NL	Enviro instruments / EI-133
3	Serial No	R.D.S. / 197-C-21	PM2.5 / PM10 Sampler / 160-K-20
4	Calibration Date	08.07.2023	06.03.2023
5	Calibration Due Date	24.07.2024	05.03.2024

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 150 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/R018
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : CO Analyser
Month : JANUARY-2024
Location : A3-Hanumanahalli Village
Duration of Monitoring : 1 Hour
Report Issued Date : 06.02.2024

RESULTS

Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	04.01.2024	4701	0.16	4.0
2	05.01.2024	4721	0.10	
3	08.01.2024	4782	0.11	
4	09.01.2024	4807	<0.01	
5	18.01.2024	4902	0.12	
6	19.01.2024	4923	0.12	
7	22.01.2024	5036	0.14	
8	23.01.2024	5042	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	08.07.2023
5	Calibration Due Date	07.07.2024

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

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/RO18
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : JANUARY-2024
Location : A4-Galemmanagudi Village
Duration of Monitoring : 24 Hour
Report Issue Date : 06.02.2024
Report Number : ULR-TC532324000001887F

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS:5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Sample Received	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
01.01.2024	02.01.2024	4626	68.05	100	15.03	60	9.85	80	12.29	80
02.01.2024	03.01.2024	4642	72.01		21.61		7.73		9.12	
08.01.2024	09.01.2024	4769	58.64		15.93		10.00		12.51	
09.01.2024	10.01.2024	4808	61.50		17.80		8.93		10.42	
16.01.2024	17.01.2024	4914	69.93		15.10		8.07		10.18	
17.01.2024	18.01.2024	4936	65.29		22.90		11.01		14.11	
22.01.2024	23.01.2024	5026	63.67		13.04		7.75		9.71	
23.01.2024	24.01.2024	5041	58.24		17.95		9.72		10.30	
Average			64.67		17.42		9.13		11.08	

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	08.07.2023	06.03.2023
5	Calibration Due Date	07.07.2024	05.03.2024

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2024
 Location : A4-Galemmanagudi Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 06.02.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	01.01.2024	4626	0.12	4.0
2	02.01.2024	4642	<0.01	
3	08.01.2024	4769	<0.01	
4	09.01.2024	4808	<0.01	
5	16.01.2024	4914	0.14	
6	17.01.2024	4936	0.10	
7	22.01.2024	5026	0.12	
8	23.01.2024	5041	0.10	

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


ND - Not Detected

SL NO	INSTRUMENT DETAILS	
1	Instrument Name	CO Gas Detector
2	Make & Model	Vasthi Instruments Pvt Ltd & VS-70-70-CO
3	Serial No	180883821
4	Calibration Date	08.07.2023
5	Calibration Due Date	07.07.2024

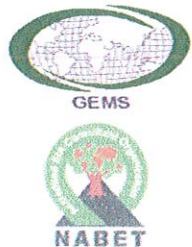
INFERENCE	As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit
-----------	---


 Analysed By
 Priyanka B M
 Chemist




 Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : JANUARY-2024
Location : A5-G Nagalapura Village
Duration of Monitoring : 24 Hour
Report Issue Date : 06.02.2024
Report Number : ULR-TC532324000001884F

RESULTS

Parameters			PM10 [µg/m ³]		PM2.5 [µg/m ³]		SO2 [µg/m ³]		NO2 [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS:5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Received Sample	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
01.01.2024	02.01.2024	4623	47.37	100	15.50	60	8.67	80	9.99	80
02.01.2024	03.01.2024	4650	41.80		11.60		6.94		7.85	
08.01.2024	09.01.2024	4766	57.76		11.19		6.59		7.61	
09.01.2024	10.01.2024	4805	42.00		13.70		9.05		9.23	
16.01.2024	17.01.2024	4902	59.43		14.84		7.84		8.33	
17.01.2024	18.01.2024	4937	44.04		14.43		6.83		8.19	
22.01.2024	23.01.2024	5025	50.37		16.62		8.72		9.85	
23.01.2024	24.01.2024	5033	41.59		13.88		7.56		8.03	
Average			48.05		13.97		7.78		8.64	

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	08.07.2023	06.03.2023
5	Calibration Due Date	24.07.2024	05.03.2024

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2024
 Location : A5- G Nagalapura Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 06.02.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	01.01.2024	4623	<0.01	4.0
2	02.01.2024	4650	<0.01	
3	08.01.2024	4766	<0.01	
4	09.01.2024	4805	<0.01	
5	16.01.2024	4902	<0.01	
6	17.01.2024	4937	<0.01	
7	22.01.2024	5025	<0.01	
8	23.01.2024	5033	<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	08.07.2023
5	Calibration Due Date	07.07.2024

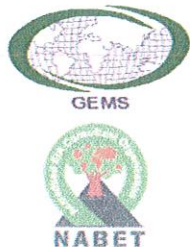
INFERENCE	As per NAAQMS Standards (2009), Report Status: - Measured Values for the above parameters are within the limit
-----------	---


 Analysed By
 Priyanka B M
 Chemist




 Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
Sample collected by : Global Environment & Mining Services
Discipline : Chemical
Group : Atmospheric Pollution
Sample Type : Ambient Air Quality Monitoring
Particulars of Sample Collected : Respirable Dust Sampler, FPS Sampler
Month : **JANUARY-2024**
Location : **A6-Gunda Tanda Village**
Duration of Monitoring : 24 Hour
Report Issue Date : **06.02.2024**
Report Number : **ULR-TC532324000001885F**

RESULTS

Parameters			PM ₁₀ [µg/m ³]		PM _{2.5} [µg/m ³]		SO ₂ [µg/m ³]		NO ₂ [µg/m ³]	
Reference Method			IS:5182: 2006 (Part-23) (RF-2017)		USEPA 2001 Gravimetric Method		IS:5182: 2001 (Part-2) (RF-2017)		IS:5182: (Part-6) 2006 (RF-2017)	
Date of Sampling	Date of Received Sample	Sample Code	Result	STD	Result	STD	Result	STD	Result	STD
01.01.2024	02.01.2024	4624	58.86	100	14.60	60	7.82	80	9.50	80
02.01.2024	03.01.2024	4651	53.35		12.36		6.78		8.02	
10.01.2024	11.01.2024	4829	60.43		17.44		8.16		9.68	
11.01.2024	12.01.2024	4863	55.64		15.43		9.02		9.71	
16.01.2024	17.01.2024	4915	67.86		17.74		8.54		11.04	
17.01.2024	18.01.2024	4938	48.67		12.70		7.68		9.54	
24.01.2024	25.01.2024	5065	50.40		13.62		8.12		10.72	
25.01.2024	26.01.2024	5075	56.37		14.49		7.66		9.54	
Average			56.45		14.80		7.97		9.72	

SL NO	INSTRUMENT DETAILS		
1	Instrument Name	Respirable Dust Sampler (RDS)	Fine Particulate Sampler (FPS)
2	Make & Model	Enviro instruments / EI-142 NL	Enviro instruments / EI-133
3	Serial No	R.D.S./200-C-21	PM2.5 /PM10 Sampler / 160-K-20
4	Calibration Date	08.07.2023	06.03.2023
5	Calibration Due Date	07.07.2024	05.03.2024

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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

ANALYSIS REPORT OF AMBIENT AIR QUALITY DATA

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
 Customer Reference : WO/ADMIN/FY24/R018
 Sample collected by : Global Environment & Mining Services
 Discipline : Chemical
 Group : Atmospheric Pollution
 Sample Type : Ambient Air Quality Monitoring
 Particulars of Sample Collected : CO Analyser
 Month : JANUARY-2024
 Location : A6-Gunda Tanda Village
 Duration of Monitoring : 1 Hour
 Report Issued Date : 06.02.2024

RESULTS


Sl. No.	Date of Sampling	Sample Code	CO (1 Hour) [mg/m ³]	Standard
1	01.01.2024	4624	<0.01	4.0
2	02.01.2024	4651	<0.01	
3	10.01.2024	4829	<0.01	
4	11.01.2024	4863	<0.01	
5	16.01.2024	4915	<0.01	
6	17.01.2024	4938	<0.01	
7	24.01.2024	5065	<0.01	
8	25.01.2024	5075	<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	08.07.2023
5	Calibration Due Date	07.07.2024

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

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	:	JANUARY-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	:	06.02.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/1957

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	4772	08.01.2024	09.01.2024	805.09	2000
2.	Main Crusher	4770	08.01.2024	09.01.2024	823.58	2000
3.	Iron Ore Screen	4771	08.01.2024	09.01.2024	1933.07	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	4773	08.01.2024	09.01.2024	1587.27	2000
5.	Annual Cooler Pellet Discharge bin	4774	08.01.2024	09.01.2024	1884.68	2000
6.	Pellet Stock Yard	4796	09.01.2024	10.01.2024	1040.25	2000
III. Sponge Iron Division-1(kiln 1 & 2)						
7.	Control Room SID-1	4821	10.01.2024	11.01.2024	1941.20	2000
8.	Near Product bin	4822	10.01.2024	11.01.2024	849.69	2000
9.	Coal Feeding Area	4823	10.01.2024	11.01.2024	1540.95	2000
IV. Induction Furnace & Rolling Mill - 1						
10.	IF Office	4797	09.01.2024	10.01.2024	693.16	2000
11.	TMT Stock Yard	4798	09.01.2024	10.01.2024	1170.11	2000
12.	RML Gasifier	4799	09.01.2024	10.01.2024	691.57	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	4824	10.01.2024	11.01.2024	864.02	2000
14.	25 MW ACC	4859	11.01.2024	12.01.2024	1768.20	2000
VI. Site Services						
15.	PGP- coal handling system	4800	09.01.2024	10.01.2024	906.54	2000
16.	IF Slag Crusher	4825	10.01.2024	11.01.2024	1459.00	2000
17.	Main Gate	4860	11.01.2024	12.01.2024	742.83	2000
18.	Fly ash Dump	4739	06.01.2024	06.01.2024	918.26	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	01.04.2023	01.04.2023	01.04.2023	01.04.2023	01.04.2023
5	Calibration Due Date	31.03.2024	31.03.2024	31.03.2024	31.03.2024	31.03.2024

Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	:	JANUARY-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	:	06.02.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/2058

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	5033	22.01.2024	23.01.2024	1342.61	2000
2.	Main Crusher	5034	22.01.2024	23.01.2024	1234.98	2000
3.	Iron Ore Screen	5035	22.01.2024	23.01.2024	1252.03	2000
II. Pellet Plant-I						
4.	Near Pellet Plant	5036	22.01.2024	23.01.2024	1702.11	2000
5.	Annual Cooler Pellet Discharge bin	5037	22.01.2024	23.01.2024	1909.18	2000
6.	Pellet Stock Yard	5050	23.01.2024	24.01.2024	1959.29	2000
III. Sponge Iron Division-1(kiln 1 & 2)						
7.	Control Room SID-I	5056	24.01.2024	25.01.2024	1969.56	2000
8.	Near Product bin	5057	24.01.2024	25.01.2024	1499.23	2000
9.	Coal Feeding Area	5058	24.01.2024	25.01.2024	1463.43	2000
IV. Induction Furnace & Rolling Mill						
10.	IF Office	5051	23.01.2024	24.01.2024	793.21	2000
11.	TMT Stock Yard	5052	23.01.2024	24.01.2024	1188.64	2000
12.	RML Gasifier	5053	23.01.2024	24.01.2024	995.95	2000
V. Power Plant 25 MW-1						
13.	25 MW ESP	5059	24.01.2024	25.01.2024	871.67	2000
14.	25 MW ACC	5070	25.01.2024	26.01.2024	719.47	2000
VI. Site Services						
15.	PGP- Coal handling system	5054	23.01.2023	24.01.2024	572.34	2000
16.	IF Slag Crusher	5060	24.01.2024	25.01.2024	376.71	2000
17.	Main Gate	5071	25.01.2024	26.01.2024	486.79	2000
18.	Fly ash Dump	5072	20.01.2024	20.01.2024	1016.21	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	01.04.2023	01.04.2023	01.04.2023	01.04.2023	01.04.2023
5	Calibration Due Date	31.03.2024	31.03.2024	31.03.2024	31.03.2024	31.03.2024

Priyanka B M
Analysed By
Priyanka B M
Chemist

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

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	:	JANUARY-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	:	06.02.2024
10	Report Number	:	GEMS/BMM/FM/2023-24/1898

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)	4643	02.01.2024	03.01.2024	573.06	2000
2.	Iron Ore Hopper (Near Monsoon Shed)	4644	02.01.2024	03.01.2024	1972.46	2000
3.	Concentrate Thickner	4645	02.01.2024	03.01.2024	597.72	2000
II. Pellet Plant-I						
4.	PR-6	4646	02.01.2024	03.01.2024	494.66	2000
5.	Annual Cooler Pellet Discharge bin	4647	02.01.2024	03.01.2024	440.49	2000
6.	Additive Grinding Building	4666	03.01.2024	04.01.2024	567.08	2000
III. Sponge Iron Division -2 (Kiln 1 & 2)						
7.	Control room	4667	03.01.2024	04.01.2024	1829.98	2000
8.	Near Weigh bridge (dispatch)	4668	03.01.2024	04.01.2024	648.17	2000
9.	Pellet Storage bin	4669	03.01.2024	04.01.2024	1794.64	2000
10.	Transfer House area	4670	03.01.2024	04.01.2024	1130.25	2000
11.	Production Separation Bin-PSB	4691	04.01.2024	05.01.2024	525.28	2000
IV. Sponge Iron Division -2 (Kiln 3 & 4)						
12.	Near Control room	4692	04.01.2024	05.01.2024	1640.34	2000
13.	Near Coal Crusher	4694	04.01.2024	05.01.2024	876.15	2000
14.	Near Product bin	4693	04.01.2024	05.01.2024	909.33	2000
15.	Coal Drier	4695	04.01.2024	05.01.2024	1291.50	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	4710	05.01.2024	06.01.2024	828.70	2000
17.	Monsoon Shed (CPU)	4711	05.01.2024	06.01.2024	724.14	2000
18.	MCC Room (2 nd Gate)	4712	05.01.2024	06.01.2024	1053.60	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	4713	05.01.2024	06.01.2024	461.04	2000
20.	2 nd gate weigh bridge Near Coal Screen	4735	06.01.2024	07.01.2024	477.21	2000
21.	CFBC boiler	4714	05.01.2024	06.01.2024	956.48	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	4736	06.01.2024	07.01.2024	343.37	2000
23.	Near Coal storage Shed	4737	06.01.2024	07.01.2024	701.48	2000
24.	CPP Dolochar Process Area	4738	06.01.2024	07.01.2024	408.18	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	01.04.2023	01.04.2023	01.04.2023	01.04.2023	01.04.2023
5	Calibration Due Date	31.03.2024	31.03.2024	31.03.2024	31.03.2024	31.03.2024

Analysed By
Priyanka BM
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

ANNEXURE-10
GEMS-LD/TF/11/01

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/R018
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: RDS Sampler (GEMS-01, GEMS-02, GEMS-03, GEMS-04, GEMS-05)
5	Month	: JANUARY-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	: 06.02.2024
10	Report Number	: GEMS/BMM/FM/2023-24/2018

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)	4904	16.01.2024	17.01.2024	232.18	2000
2.	Iron Ore Hopper (Near Monsoon Shed)	4906	16.01.2024	17.01.2024	1377.61	2000
3.	Concentrate Thickener	4905	16.01.2024	17.01.2024	612.92	2000
II. Pellet Plant						
4.	PR-6	4907	16.01.2024	17.01.2024	321.30	2000
5.	Annual Cooler Pellet Discharge bin	4908	16.01.2024	17.01.2024	527.61	2000
6.	Additive Grinding Building	4925	17.01.2024	18.01.2024	689.35	2000
III. Sponge Iron Division -2 (Kiln 1 & 2)						
7.	Control room	4926	17.01.2024	18.01.2024	878.97	2000
8.	Near Weigh bridge (dispatch)	4927	17.01.2024	18.01.2024	555.18	2000
9.	Pellet Storage bin	4934	17.01.2024	18.01.2024	1958.23	2000
10.	Transfer House area	4928	17.01.2024	18.01.2024	1280.71	2000
11.	Production Separation Bin-PSB	4946	18.01.2024	19.01.2024	972.73	2000
IV. Sponge Iron Division -2 (Kiln 3 & 4)						
12.	Near Control room	4947	18.01.2024	19.01.2024	1318.78	2000
13.	Near Coal Crusher	4949	18.01.2024	19.01.2024	1948.22	2000
14.	Near Product bin	4948	18.01.2024	19.01.2024	1173.55	2000
15.	Coal Dryer	4950	18.01.2024	19.01.2024	288.55	2000
V. Wagon Tipper/RMHS						
16.	Near Tipping point	4975	19.01.2024	20.01.2024	1100.34	2000
17.	Monsoon Shed (CPU)	4976	19.01.2024	20.01.2024	849.09	2000
18.	MCC Room (2 nd Gate)	4977	19.01.2024	20.01.2024	537.60	2000
VI. Power Plant-70 MW						
19.	70MW-DM Plant (Near R.O. Plant)	4978	19.01.2024	20.01.2024	798.19	2000
20.	2 nd gate weigh bridge Near Coal Screen	4994	20.01.2024	20.01.2024	783.96	2000
21.	CFBC boiler	4979	19.01.2024	20.01.2024	567.75	2000
VII. 2X70MW Power Plant						
22.	Near Boiler	4995	20.01.2024	20.01.2024	1012.39	2000
23.	Near Coal storage Shed	4996	20.01.2024	20.01.2024	507.85	2000
24.	Dolochar Processing Area	4997	20.01.2024	20.01.2024	1766.16	2000

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

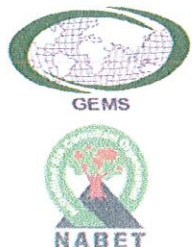
SL NO	INSTRUMENT DETAILS	GEMS-01	GEMS-02	GEMS-03	GEMS-04	GEMS-05
1	Instrument Name	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler	Respirable Dust Sampler
2	Make & Model	Greentech Instruments/ GTI-151	Greentech Instruments/ GTI-151	Greentech Instruments/ 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	01.04.2023	01.04.2023	01.04.2023	01.04.2023	01.04.2023
5	Calibration Due Date	31.03.2024	31.03.2024	31.03.2024	31.03.2024	31.03.2024

Priyanka B M
Analysed By
Priyanka B M
Chemist



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

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Sampling Location : Pellet Plant-1 ESP
- 10 Month of Sampling : JANUARY-2024
- 11 Date of Sample Received : 01.01.2024 & 16.01.2024
- 12 Date of Sample Analysis : 01.01.2024 & 16.01.2024
- 13 Date of Sample Analysis completion : 02.01.2024 & 17.01.2024
- 14 Report Issued Date : 06.02.2024
- 15 Report Number : ULR-TC532324000001882F

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	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
	Date of Monitoring Sample Code			01.01.2024	16.01.2024	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	29	28	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	78	75	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	5.26	5.42	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	287765	291907	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	244056	249900	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	33.68	36.19	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	821.0	227.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	37.0	79.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.077	0.021	NS

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

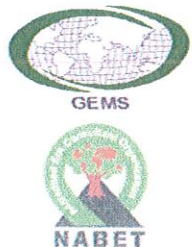
Analysed By
Priyanka B M
Chemist



Authorised Signatory
K Ramakrishna Reddy
Technical Manager

Note:

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 15 days, Minerals 3 Months, Filter papers & Thinblades 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.
4. Total liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/R018
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: 28.03.2023 Calibration Due Date: 27.03.2024
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	: JANUARY-2024
11	Date of Sample Received	: 02.01.2024 & 22.01.2024
12	Date of Sample Analysis	: 02.01.2024 & 22.01.2024
13	Date of Sample Analysis completion	: 03.01.2024 & 23.01.2024
14	Report Issued Date	: 06.02.2024
15	Report Number	: ULR-TC532324000001889F

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
				1 st Fort Night	2 nd Fort Night	
				02.01.2024	22.01.2024	
	Date of Monitoring					
	Sample Code			4648	5032	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	32	32	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	178	171	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.40	6.45	-
4	Gas flow rate at Stack Condition	IS: 11255 (Part 03) (RA 2014)	m ³ /hr	72349	73523	-
5	Gas flow rate at NTP	IS: 11255 (Part 03) (RA 2014)	Nm ³ /hr	47799	49314	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	20.02	23.32	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	118.0	125.0	NS
8	Nitrogen Dioxide	IS: 11255 (Part 7): 2005 (RA 2017)	mg/Nm ³	36.0	38.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.317	0.351	1

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

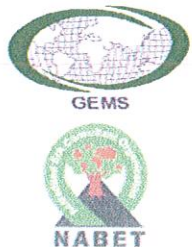
Analysed By
Priyanka B M
Chemist



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 & Thinblies 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
3rd Main Road, Basaveswara Badavane,
HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)
Ph : 08394 355369
e-mail : gems_hpt@yahoo.com
Website : www.globalmining.in



TC-5323

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/R018
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024 (1st Fort Night)
- 10 Date of Sample Received : 11.01.2024
- 11 Date of Sample Analysis : 11.01.2024
- 12 Date of Sample Analysis completion : 12.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002003F

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	11.01.2024	4861	Electric Power	32	41	5.37	30	1.0	5.87	150
2	Induction Furnance 2	11.01.2024	4862		33	43	5.38	30	1.0	11.67	150

Sl. No	Induction Furnance 1 & 2	Gas flow rate at Stack Condition m ³ /hr	Gas flow rate at NTP Nm ³ /hr	KSPCB Std
1	Induction Furnance 1	21863	20699	-
2	Induction Furnance 2	25710	24176	-

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)

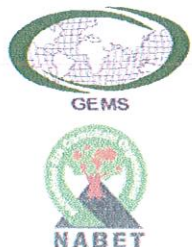
Priyanka B M
Analysed By
Priyanka B M
Chemist



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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGFS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
 3rd Main Road, Basaveswara Badavane,
HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)
 Ph : 08394 355369
 e-mail : gems_hpt@yahoo.com
 Website : www.globalmining.in



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/RO18 |
| 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: 28.03.2023
Calibration Due Date: 27.03.2024 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Sampling Location | : Rolling mill reheating furnace |
| 10 | Month of Sampling | : JANUARY-2024 |
| 11 | Date of Sample Received | : 05.01.2024&20.01.2024 |
| 12 | Date of Sample Analysis | : 05.01.2024&20.01.2024 |
| 13 | Date of Sample Analysis completion | : 06.01.2024&22.01.2024 |
| 14 | Report Issued Date | : 06.02.2024 |
| 15 | Report Number | : ULR-TC532324000001939F |

Stack Details

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

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
	Date of Monitoring Sample Code			05.01.2024	20.01.2024	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	36	38	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	374	378	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	7.35	7.51	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)	m ³ /hr	13304	13754	-
5	Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)	Nm ³ /hr	6122.8	6292.9	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	13.84	13.19	50
7	Sulphur Dioxide	IS: 11255 (Part 2): (RA 2014)	mg/Nm ³	16.0	18.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	304.0	338.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.041	0.037	NS

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

Priyanka B M
Analysed By
 Priyanka B M
 Chemist



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

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 & Thinblades 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 DGFS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
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: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Sample Type	: Stack Monitoring
9	Sampling Location	: AFBC Boiler ESP (25 MW Power Plant)
10	Month of Sampling	: JANUARY-2024
11	Date of Sample Received	: -
12	Date of Sample Analysis	: -
13	Date of Sample Analysis completion	: -
14	Report Issued Date	: -
15	Report Number	: -

Stack Details

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

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
	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) (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 (Part 7): 2005 (RA 2017)	mg/Nm ³			NS
9	Carbon Monoxide	GEMS/SOP/69	%			NS

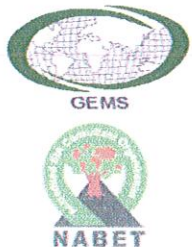
Note: NS- Not Specified. RA: Reaffirmed,



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024 (1st Fort Night)
- 10 Date of Sample Received : 12.01.2024
- 11 Date of Sample Analysis : 12.01.2024
- 12 Date of Sample Analysis completion : 13.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002017F

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	12.01.2024	4889	-	30	32	4.61	25	0.40	15.90	50
2	Iron Ore Screen bin	12.01.2024	4890	-	31	36	5.01	30	0.40	13.72	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	2088	2271	-
2	Iron Ore Screen bin	2039	2183	-

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)

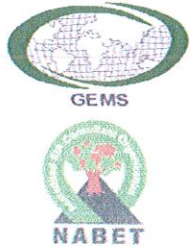
Priyanka B M
Analysed By
Priyanka B M
Chemist



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 15 Days, 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.
4. Total liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024(1st Fort Night)
- 10 Date of Sample Received : 10.01.2024 & 27.01.2024
- 11 Date of Sample Analysis : 10.01.2024 & 27.01.2024
- 12 Date of Sample Analysis completion : 11.01.2024 & 29.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000001983F

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
RMHS											
3	Screen, Coal Crusher(CPU)	10.01.2024	4826	-	29	35	4.74	3.0	0.30	16.80	50
4	Main Crusher	27.01.2024	5115	-	30	36	4.94	35	0.50	15.03	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)	2167	2217	-
4	Main Crusher	2095	2129	-

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)

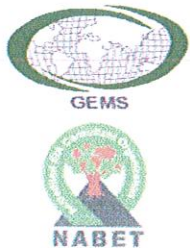
Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
3rd Main Road, Basaveswara Badavane,
HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)
Ph : 08394 355369
e-mail : gems_hpt@yahoo.com
Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024 (1st Fort Night)
- 10 Date of Sample Received : 01.01.2024 & 02.01.2024
- 11 Date of Sample Analysis : 01.01.2024 & 02.01.2024
- 12 Date of Sample Analysis completion : 02.01.2024 & 03.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000001888F

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	01.01.2024	4627	-	32	35	4.76	6.5	0.60	18.93	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	01.01.2024	4628	-	33	36	4.33	3.0	0.30	27.47	50
7	Bentonite Powder bin top bag filter	02.01.2024	4652	-	32	37	4.52	3.0	0.30	23.35	50
8	H-4 Conveyor discharge bag filter	-	-	-	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	02.01.2024	4649	-	32	37	5.03	7.0	0.50	34.49	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	4849	4678	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1103	1060	-
7	Bentonite Powder bin top bag filter	1151	1104	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3562	3390	-

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:

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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/R018
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024(1st Fort Night)
- 10 Date of Sample Received : 09.01.2024, 10.01.2024 & 12.01.2024
- 11 Date of Sample Analysis : 09.01.2024, 10.01.2024 & 12.01.2024
- 12 Date of Sample Analysis completion : 10.01.2024, 11.01.2024 & 13.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000001970F

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2 X 100 TPD Sponge Iron Kiln 1 & 2											
10	Cooler-1 Discharge & Blending Chute	09.01.2024	4803	---	32	36	4.43	30	1.20	29.11	50
11	Cooler-2 Discharge	12.01.2024	4891	---	33	37	4.84	30	1.20	25.70	50
12	Intermediate Bin & Blending	09.01.2024	4804	---	32	37	4.66	30	1.20	27.49	50
13	Product House	10.01.2024	4828	---	30	36	4.93	30	1.20	30.72	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	18049	17356	-
11	Cooler-2 Discharge	19717	18901	-
12	Intermediate Bin & Blending	18976	18177	-
13	Product House	20087	19349	-

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)

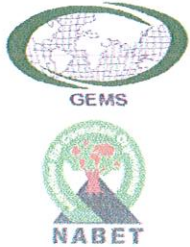
Analysed By
Priyanka B M
Chemist



Authorised Signatory
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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGFS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
3rd Main Road, Basaveswara Badavane,
HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)
Ph : 08394 355369
e-mail : gems_hpt@yahoo.com
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/R018
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024 (2nd Fort Night)
- 10 Date of Sample Received : 30.01.2024
- 11 Date of Sample Analysis : 30.01.2024
- 12 Date of Sample Analysis completion : 31.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002116F

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	30.01.2024	5121	Electric	29	38	5.25	30	1.0	5.02	50
2	Induction Furnance 2	30.01.2024	5122	Power	29	42	5.29	30	1.0	13.19	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	24550	23213	-
2	Induction Furnance 2	13754	6292.9	-

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:

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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GEMS



NABET

GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,**HOSAPETE - 583201**, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-21
GEMS-LD/TF/10/01**Analysis Report of Stack Emission**

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024(2nd Fort Night)
- 10 Date of Sample Received : 27.01.2024
- 11 Date of Sample Analysis : 27.01.2024
- 12 Date of Sample Analysis completion : 29.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002117F

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	27.01.2024	5115	---	29	35	4.74	25	0.40	14.93	50
2	Iron Ore Screen bin	27.01.2024	5116	---	30	36	4.94	30	0.40	17.85	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	2167	2095	-
2	Iron Ore Screen bin	2217	2129	-

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)

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 15 Days, 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.
4. Total Liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGFS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024(2nd Fort Night)
- 10 Date of Sample Received : 29.01.2024
- 11 Date of Sample Analysis : 29.01.2024
- 12 Date of Sample Analysis completion : 30.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002118F

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)	29.01.2024	5119	-	29	37	5.32	3.0	0.30	30.12	50
4	Main Crusher	29.01.2024	5120	-	31	35	4.71	35	0.50	11.76	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)	32551	32551	-
4	Main Crusher	3330	3213	-

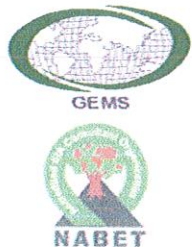
Parameter	Protocol
Particulate Matter (mg/Nm ³)	IS: 11255 (Part 1) - 1985 (reaffirmed 2014)
Gas flow rate at Stack Condition	IS-11255(Part 03) (RA 2014)
Gas flow rate at NTP	IS-11255(Part 03) (RA 2014)

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K Ramakrishna Reddy
Technical Manager

Note:

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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024(2nd Fort Night)
- 10 Date of Sample Received : 16.01.2024&17.01.2024
- 11 Date of Sample Analysis : 16.01.2024&17.01.2024
- 12 Date of Sample Analysis completion : 17.01.2024&18.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002020F

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/N m ³
Chimneys attached to Bag Filter (De dusting Units)											
Pellet Plant-I											
5	AGB Main Bag Filter	16.01.2024	4910	---	32	35	4.76	6.5	0.60	21.30	50
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	16.01.2024	4911	---	33	36	4.33	3.0	0.30	24.16	50
7	Bentonite Powder bin top bag filter	17.01.2024	4931	---	32	35	4.43	3.0	0.30	24.88	50
8	H-4 Conveyor discharge bag filter	-	-	---	-	-	-	7.0	0.50	-	50
9	P-1 Bag Filter	17.01.2024	4932	---	33	40	4.93	7.0	0.50	32.32	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	4849	4678	-
6	Lime Powder bin top bag Filter/ Powder Coal Main Bag Filter	1103	1060	-
7	Bentonite Powder bin top bag filter	1130	1090	-
8	H-4 Conveyor discharge bag filter	-	-	-
9	P-1 Bag Filter	3486	3309	-

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)

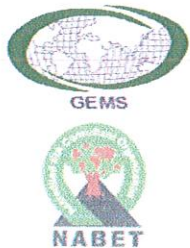
Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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 15 Days, 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.
4. Total liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
- 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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024(2nd Fort Night)
- 10 Date of Sample Received : 25.01.2024&29.01.2024
- 11 Date of Sample Analysis : 25.01.2024&29.01.2024
- 12 Date of Sample Analysis completion : 26.01.2024&30.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002068F

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	25.01.2024	5072	---	30	35	4.48	30	1.20	22.22	50
11	Cooler-2 Discharge	25.01.2024	5073	---	30	36	4.75	30	1.20	27.85	50
12	Intermediate Bin & Blending	25.01.2024	5074	---	31	37	4.90	30	1.20	25.43	50
13	Product House	29.01.2024	5101	---	28	35	4.55	30	1.20	29.04	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	18279	17678	-
11	Cooler-2 Discharge	19354	18646	-
12	Intermediate Bin & Blending	19977	19150	-
13	Product House	18558	17950	-

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:

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 150 days, Minerals 3 Months, Filter papers & Thinblades 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGP's survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Sample Type	: Stack Monitoring
9	Sampling Location	: Pellet Plant-2 ESP
10	Month of Sampling	: JANUARY-2024
11	Date of Sample Received	: -
12	Date of Sample Analysis	: -
13	Date Sample Analysis Completion	: -
14	Report Issued Date	: 06.02.2024
15	Report Number	: -

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	
	Date of Monitoring Sample Code			-	-	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	Shut down	Shut down	-
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			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

Note:

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Sampling Location : **SID Axis 1 & 2**
- 10 Month of Sampling : **JANUARY-2024**
- 11 Date of Sample Received : 03.01.2024&18.01.2024
- 12 Date of Sample Analysis : 04.01.2024&19.01.2024
- 13 Date Sample Analysis Completion : 04.01.2024&19.01.2024
- 14 Report Issued Date : **06.02.2024**
- 15 Report Number : **ULR-TC532324000001899F**

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	
				02.01.2024	17.01.2024	
	Date of Monitoring					
	Sample Code			4648	4930	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	32	29	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	131	129	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.02	5.79	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	153408	147425	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	113113	109271	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	30.19	34.58	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	821.0	628.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005(RA 2017)	mg/Nm ³	37.0	39.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.077	0.094	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:

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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

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: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Sample Type	: Stack Monitoring
9	Sampling Location	: SID Axis 3&4
10	Month of Sampling	: JANUARY-2024
11	Date of Sample Received	: 04.01.2024&18.01.2024
12	Date of Sample Analysis	: 05.01.2024&19.01.2024
13	Date Sample Analysis Completion	: 05.01.2024&19.01.2024
14	Report Issued Date	: 06.02.2024
15	Report Number	: ULR-TC532324000001911F

Stack Details

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

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				03.01.2024	17.01.2024	
	Date of Monitoring					
	Sample Code			4671	4933	
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	32	32	-
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	5.97	6.08	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	152059	154758	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	111581	114108	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	33.57	35.43	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	354.0	557.0	NS
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	126.0	84.0	NS
9	Carbon Monoxide	GEMS/SOP/69	%	0.031	0.055	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.
- 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Sampling Location : 1X70 MW-CFBC Boiler ESP
- 10 Month of Sampling : JANUARY-2024
- 11 Date of Sample Received : 05.01.2024&20.01.2024
- 12 Date of Sample Analysis : 06.01.2024&22.01.2024
- 13 Date Sample Analysis Completion : 06.01.2024&22.01.2024
- 14 Report Issued Date : 06.02.2024
- 15 Report Number : ULR-TC532324000001923F

Stack Details

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

Emission Details

Sl. No.	Parameters	Method	Unit	Result		Permissible Limit
				1 st Fort Night	2 nd Fort Night	
				04.01.2024	19.01.2024	
	Date of Monitoring			4696	4980	
	Sample Code					
1	Ambient Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	31	31	-
2	Stack Temperature	IS: 11255 (Part 1) - 1985 (RA 2014)	°C	124	126	-
3	Velocity of Fuel Gas	IS: 11255 (Part 3) - 1985 (RA 2014)	m/sec	6.08	5.99	-
4	Gas flow rate at Stack Condition	IS-11255(Part 03)1985(RA 2014)	m ³ /hr	154814	152441	-
5	Gas flow rate at NTP	IS-11255(Part 03)1985(RA 2014)	Nm ³ /hr	116070	113823	-
6	Particulate Matter	IS: 11255 (Part 1) - 1985 (RA 2014)	mg/Nm ³	35.65	38.38	50
7	Sulphur Dioxide	IS: 11255 (Part 2): 1985 (RA 2014)	mg/Nm ³	387.0	292.0	600
8	Nitrogen Dioxide	IS:11255 (Part7): 2005 (RA 2017)	mg/Nm ³	33.0	42.0	300
9	Carbon Monoxide	GEMS/SOP/69	%	0.058	0.042	NS

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

Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15 Days, Minerals 3 Months, Filler 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.
4. Total liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308
5	Instrument Details	: Calibration Date: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Sample Type	: Stack Monitoring
9	Sampling Location	: 2X70 MW CFBC Boiler ESP
10	Month of Sampling	: JANUARY-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



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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : **JANUARY-2024 (1st Fort Night)**
- 10 Date of Sample Received : 27.01.2024
- 11 Date of Sample Analysis : 29.01.2024
- 12 Date Sample Analysis Completion : 29.01.2024
- 13 Report Issued Date : **06.02.2024**
- 14 Report Number : **ULR-TC532324000001923F**

RESULTS

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Beneficiation Plant-2											
1	Iron Ore Cone Crusher	-	-	---	-	-	-	30	1.20	-	50
2	Iron Ore Screening	27.01.2024	5117	---	32	36	4.97	30	0.90	17.66	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	11397	10957	-

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.



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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

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: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Sample Type	: Stack Monitoring
9	Month of Sampling	: JANUARY-2024(1 st Fort Night)
10	Date of Sample Received	: -
11	Date of Sample Analysis	: -
12	Date Sample Analysis Completion	: -
13	Report Issued Date	: 06.02.2024
14	Report Number	: -

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	-	-	---	-	-	-	6.5	0.5	-	50
4	Lime & Bentonite Powder bin top bag filter	-	-	---	-	-	-	3	0.35	-	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	-	-	---	-	-	-	20	0.5	-	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	-	-	-
4	Lime & Bentonite Powder bin top bag filter	-	-	-
5	AGB De dusting Bag Filter	-	-	-
6	Powder Coal main bag filter	-	-	-
7	RP-6 Conveyor bag Filter	-	-	-
8	Pellet discharge bin bag filter	-	-	-

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:



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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

- | | | |
|----|---------------------------------|---|
| 1 | Name of the Industry | : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District. |
| 2 | Customer Reference | : WO/ADMIN/FY24/RO18 |
| 3 | Sample collected by | : GLOBAL Environment & Mining Services |
| 4 | Particulars of sample collected | : Vayubodhan Stack sampler/ VBSS2
Sl.No:Stack Monitoring Kit/ 032308 |
| 5 | Instrument Details | : Calibration Date: 28.03.2023
Calibration Due Date: 27.03.2024 |
| 6 | Discipline | : Chemical |
| 7 | Group | : Atmospheric Pollution |
| 8 | Sample Type | : Stack Monitoring |
| 9 | Month of Sampling | : JANUARY-2024(1 st Fort Night) |
| 10 | Date of Sample Received | : 03.01.2024,04.01.2024, 05.01.2024, 06.01.2024& 08.01.2024 |
| 11 | Date of Sample Analysis | : 04.01.2024,05.01.2024, 06.01.2024, 08.01.2024& 09.01.2024 |
| 12 | Date Sample Analysis Completion | : 04.01.2024,05.01.2024, 06.01.2024, 08.01.2024& 09.01.2024 |
| 13 | Report Issued Date | : 06.02.2024 |
| 14 | Report Number | : ULR-TC532324000001914F |

RESULTS

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2 X 500 TPD Sponge Iron Kiln 1 & 2											
9	Cooler Discharge -1	03.01.2024	4674	---	32	36	4.80	30	1.2	29.33	50
10	Cooler Discharge -2	03.01.2024	4675	---	33	37	4.95	30	1.2	31.72	50
11	Coal stock house	04.01.2024	4698	---	32	35	4.48	30	1.2	10.08	50
12	PSB 1 System-1	04.01.2024	4697	---	31	37	4.84	30	1.2	32.94	50
13	PSB 1 System-2	05.01.2024	4716	---	31	37	4.76	30	1.2	36.09	50
14	PSB 2 System-1 MCC	05.01.2024	4717	---	32	38	4.93	30	1.2	35.19	50
15	PSB 1 System-2 Road	06.01.2024	4740	---	31	36	5.07	30	1.2	37.64	50
16	Junction House Old & New	06.01.2024	4741	---	32	37	5.19	30	1.2	34.49	50
17	Storage Bunker	08.01.2024	4775	---	30	35	4.90	30	1.2	35.50	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	19532	18780	-
10	Cooler Discharge -2	20144	19295	-
11	Coal stock house	18249	17603	-
12	PSB 1 System-1	19725	18894	-
13	PSB 1 System-2	19397	18599	-
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:

- 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

- 1 Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
- 2 Customer Reference : WO/ADMIN/FY24/RO18
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Vayubodhan Stack sampler/ VBSS2
Sl.No: Stack Monitoring Kit/ 032308
- 5 Instrument Details : Calibration Date: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024 (1st Fort Night)
- 10 Date of Sample Received : 08.01.2024 & 09.01.2024
- 11 Date of Sample Analysis : 09.01.2024 & 10.01.2024
- 12 Date Sample Analysis Completion : 09.01.2024 & 10.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000001959F

RESULTS

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/s	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2X500 TPD Sponge Iron Kiln 3&4											
19	DE 3, Axis 3 CD	08.01.2024	4776	---	31	36	4.64	30	1.2	32.97	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House (Stand By)	08.01.2024	4777	---	32	37	5.18	30	1.2	36.13	50
21	DE 8 & 12 I-Bin, (Stand By)	08.01.2024	4778	---	32	38	4.85	30	1.9	34.69	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	09.01.2024	4801	---	30	38	5.24	30	1.9	37.55	50
23	Coal Dryer	09.01.2024	4802	---	31	39	5.17	27	1.2	38.10	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 15 Days, Minerals 3 Months, Filler 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.
4. Total liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Stack Emission

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/R018
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Vayubodhan Stack sampler/ VBSS2 Sl.No:Stack Monitoring Kit/ 032308
5	Instrument Details	: Calibration Date: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	: Chemical
7	Group	: Atmospheric Pollution
8	Sample Type	: Stack Monitoring
9	Month of Sampling	: JANUARY-2024(2nd Fort Night)
10	Date of Sample Received	: 27.01.2024
11	Date of Sample Analysis	: 29.01.2024
12	Date Sample Analysis Completion	: 29.01.2024
13	Report Issued Date	: 06.02.2024
14	Report Number	: ULR-TC532324000002119F

RESULTS

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
Beneficiation Plant-2											
1	Iron Ore Cone Crusher	-	-	---	-	-	-	30	1.20	-	50
2	Iron Ore Screening	27.01.2024	-	---	32	36	4.97	30	0.90	17.66	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	11397	10957	-

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.
- 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

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: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	JANUARY-2024(2 nd Fort Night)
10	Date of Sample Received	:	-
11	Date of Sample Analysis	:	-
12	Date Sample Analysis Completion	:	-
13	Report Issued Date	:	06.02.2024
14	Report Number	:	-

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	-	-	---	-	-	-	6.5	0.5	-	50
4	Lime & Bentonite Powder bin top bag filter	-	-	---	-	-	-	3	0.35	-	50
5	AGB De dusting Bag Filter	-	-	---	-	-	-	6	0.6	-	50
6	Powder Coal main bagfilter	-	-	---	-	-	-	6	0.6	-	50
7	RP-6 Conveyor bag Filter	-	-	---	-	-	-	6	0.3	-	50
8	Pellet discharge bin bagfilter	-	-	---	-	-	-	20	0.5	-	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	-	-	-
4	Lime & Bentonite Powder bin top bag filter	-	-	-
5	AGB De dusting Bag Filter	-	-	-
6	Powder Coal main bagfilter	-	-	-
7	RP-6 Conveyor bag Filter	-	-	-
8	Pellet discharge bin bagfilter	-	-	-

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:-



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, Filler 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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/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: 28.03.2023 Calibration Due Date: 27.03.2024
6	Discipline	:	Chemical
7	Group	:	Atmospheric Pollution
8	Sample Type	:	Stack Monitoring
9	Month of Sampling	:	JANUARY-2024(2nd Fort Night)
10	Date of Sample Received	:	18.01.2024,19.01.2024, 20.01.2024, 22.01.2024& 23.01.2024
11	Date of Sample Analysis	:	19.01.2024,20.01.2024,22.01.2024, 23.01.2024&24.01.2024
12	Date Sample Analysis Completion	:	20.01.2024,20.01.2024, 22.01.2024, 23.01.2024&24.01.2024
13	Report Issued Date	:	06.02.2024
14	Report Number	:	ULR-TC532324000002031F

RESULTS

Sl. No	Stack Attached to	Date of Monitoring	Sample Code	Fuel Used	Ta °C	TS °C	V m/Sec	Height (m)	Diameter (m)	PM mg/Nm ³	KSPCB Std mg/Nm ³
Chimneys attached to Bag Filter (De dusting Units)											
2 X 500 TPD Sponge Iron Kiln 1 & 2											
9	Cooler Discharge -1	18.01.2024	4952	---	32	36	4.57	30	1.2	30.76	50
10	Cooler Discharge -2	18.01.2024	4953	---	32	37	4.86	30	1.2	30.98	50
11	Coal stock house	19.01.2024	4981	---	32	35	4.44	30	1.2	12.03	50
12	PSB 1 System-1	19.01.2024	4982	---	33	37	4.67	30	1.2	35.30	50
13	PSB 1 System-2	20.01.2024	4999	---	33	37	4.59	30	1.2	34.47	50
14	PSB 2 System-1 MCC	20.01.2024	5000	---	34	38	4.72	30	1.2	37.49	50
15	PSB 1 System-2 Road	22.01.2024	5021	---	31	37	5.02	30	1.2	36.72	50
16	Junction House Old & New	22.01.2024	5022	---	33	38	5.26	30	1.2	36.79	50
17	Storage Bunker	23.01.2024	5043	---	30	36	4.82	30	1.2	32.12	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	18609	17897	-
10	Cooler Discharge -2	19779	18953	-
11	Coal stock house	18070	17440	-
12	PSB 1 System-1	19026	18237	-
13	PSB 1 System-2	18697	17924	-
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.

[Signature]
Analysed By
Priyanka B M
Chemist



[Signature]
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
3rd Main Road, Basaveswara Badavane,
HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)
Ph : 08394 355369
e-mail : gems_hpt@yahoo.com
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: 28.03.2023
Calibration Due Date: 27.03.2024
- 6 Discipline : Chemical
- 7 Group : Atmospheric Pollution
- 8 Sample Type : Stack Monitoring
- 9 Month of Sampling : JANUARY-2024(2nd Fort Night)
- 10 Date of Sample Received : 23.01.2024&24.01.2024
- 11 Date of Sample Analysis : 24.01.2024&25.01.2024
- 12 Date Sample Analysis Completion : 24.01.2024&25.01.2024
- 13 Report Issued Date : 06.02.2024
- 14 Report Number : ULR-TC532324000002059F

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	23.01.2024	5052	---	31	37	4.71	30	1.20	31.42	50
20	DE 4, DE 7, DE 7A Axis 4 CD Junction House(Stand By)	23.01.2024	5053	---	32	38	5.23	30	1.20	35.92	50
21	DE 8 & 12 I-Bin, (Stand By)	24.01.2024	5061	---	30	37	4.98	30	1.30	33.24	50
22	DE 9 & 10 PSB 1 & 2 Product Separation bin	24.01.2024	5062	---	31	38	5.16	30	1.4	36.36	50
23	Coal Dryer	24.01.2024	5063	---	33	41	4.98	35	1.90	34.18	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:

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 15 Days, 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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-38
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
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 : JANUARY-2024
Report Issue Date : 06.02.2024
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : ULR-TC532324000001901F

Sl. No	Location	Date of Monitoring	Noise Level dB (A)					
			Day Time		Standard	Night Time		Standard
			Min	Max		Min	Max	
1	Main Gate	01.01.2024	48.3	53.5	75	43.6	50.2	70
2	Near ATM	01.01.2024	45.2	56.4	75	42.3	49.8	70
3	Transit House	02.01.2024	50.1	55.2	75	42.1	56.1	70
4	CAAQMS Station	02.01.2024	47.1	53.4	75	41.4	51.8	70
5	Gunda Road	03.01.2024	50.1	53.2	75	43.2	53.4	70
6	Gunda Railway Station	03.01.2024	54.6	62.4	75	48.6	60.1	70
7	Bagging Shed	04.01.2024	48.2	58.4	75	46.4	58.6	70
8	Railway Siding	04.01.2024	59.1	65.6	75	57.8	61.4	70
9	4th Gate	05.01.2024	50.2	61.4	75	44.6	58.2	70
10	Bricks Plant	05.01.2024	53.8	66.8	75	46.2	56.4	70
11	Kempuhalla (Wagon Tippler)	06.01.2024	47.4	52.4	75	41.8	50.2	70
12	Danapura Bridge	06.01.2024	53.8	58.6	75	50.1	53.4	70
13	2nd Gate	08.01.2024	49.6	55.8	75	43.4	51.8	70
14	Project Store	08.01.2024	46.0	52.4	75	42.8	50.3	70
15	Dispatch (Truck Parking Area)	09.01.2024	60.2	68.6	75	56.4	66.2	70

INFERENCE

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



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

- 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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-39
GEMS-LD/TF/08/01

AMBIENT NOISE LEVEL MONITORING REPORT

Name of the Industry : BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
Customer Reference : WO/ADMIN/FY24/R018
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 : JANUARY-2024
Report Issue Date : 06.02.2024
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : ULR-TC532324000002022F

Sl. No	Location	Date of Monitoring	Noise Level dB (A)					
			Day Time		Standard	Night Time		Standard
			Min	Max		Min	Max	
1	Main Gate	16.01.2024	52.1	56.1	75	48.2	53.8	70
2	Near ATM	16.01.2024	46.4	50.5	75	41.6	52.2	70
3	Transit House	17.01.2024	47.6	56.4	75	44.1	56.9	70
4	CAAQMS Station	17.01.2024	45.8	56.1	75	43.6	56.0	70
5	Gunda Road	18.01.2024	52.8	59.6	75	40.2	58.4	70
6	Gunda Railway Station	18.01.2024	60.2	69.2	75	39.8	67.2	70
7	Bagging Shed	19.01.2024	52.8	60.9	75	41.0	67.1	70
8	Railway Siding	19.01.2024	63.4	70.8	75	43.6	63.8	70
9	4th Gate	20.01.2024	52.6	57.8	75	46.0	56.8	70
10	Bricks Plant	20.01.2024	52.5	61.4	75	43.8	60.8	70
11	Kempuhalla (Wagon Tippler)	22.01.2024	50.2	55.6	75	49.8	55.8	70
12	Danapura Bridge	22.01.2024	50.3	58.2	75	42.8	59.4	70
13	2nd Gate	23.01.2024	52.4	57.8	75	37.6	56.1	70
14	Project Store	23.01.2024	47.2	51.4	75	42.4	50.8	70
15	Dispatch (Truck Parking Area)	24.01.2024	60.1	68.2	75	56.2	60.4	70

INFERENCE

As per CPCB Standards,

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



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

- 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 DGS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
3rd Main Road, Basaveswara Badavane,
HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)
Ph : 08394 355369
e-mail : gems_hpt@yahoo.com
Website : www.globalmining.in



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
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 : **JANUARY-2024**
Report Issue Date : **06.02.2024**
Method Adopted : IS 9989-1981 Reaffirmed 2014
Report No : **ULR-TC532324000001897F**

Sl. No	Location	Date of Monitoring	Noise Level dB (A)						
			Day Time			Standard	Night Time		
			Min	Max	Avg		Min	Max	Avg
1	Danapur Village	04.01.2024	42.3	54.8	52.72	55	36.1	42.8	40.14
2	Mariyammana Halli	01.01.2024	44.2	53.3	51.86		36.4	43.2	41.38
3	Hanumana Halli	04.01.2024	45.7	54.6	53.12		40.3	43.3	41.12
4	Galemmanagudi	01.01.2024	42.6	53.2	51.69		39.1	42.1	40.54
5	G.Nagalapura Village	01.01.2024	40.1	50.8	49.26		37.4	40.2	38.12
6	Gunda Tanda Village	01.01.2024	39.2	49.8	46.86		36.2	41.6	40.06

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

INFERENCE

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



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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:

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-41
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18
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	: 5004
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002057F

Results

Sl. No.	Parameters	Protocol	Unit	Danapur Village (GW1)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.40	6.5 to 8.5	NR
2.	Conductivity	APHA 23rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	2500	-	-
3.	Total Dissolved Solids	APHA 23rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1500	500	2000
4.	Turbidity (NTU)	APHA 23rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5
5.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	237.90	200	400
7.	Phosphorus as P	APHA 23rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	243.55	-	-
9.	Potassium as K	APHA 23rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	187.57	75	200
11.	Magnesium as Mg	APHA 23rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	28.93	30	100
12.	Total Hardness as CaCO ₃	APHA 23rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	588.0	200	600
13.	Chloride as Cl	APHA 23rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	422.84	250	1000
14.	Fluoride as F	APHA 23rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.72	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	17.56	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	582.0	200	600

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15 Days, Minerals 3 Months, Filter papers & Thimbles After analysis Discard.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of Law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
- Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
- Recognised by Government of Karnataka, Maharashtra, Goa for DGP's survey





GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-41

17.	Acidity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.12	0.30	NR
19.	Nickel as Ni	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.02	0.02	NR
20.	Manganese as Mn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.284	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.174	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	<0.05	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.


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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	: 5004
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024

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	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

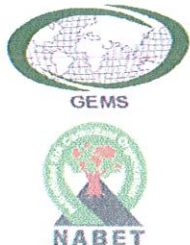
Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-42
GEMS-LD/TF/23/01

Analysis Report of Water Quality Data

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/R018
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5006
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002059F

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)	-	7.90	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	1100	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	682	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	0.00	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	98.13	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	165.45	-	-
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	48.96	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	29.74	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	242.4	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl-	mg/L	206.38	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.48	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	14.56	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	240.9	200	600

Note:

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





GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
 3rd Main Road, Basaveswara Badavane,
HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)
 Ph : 08394 355369
 e-mail : gems_hpt@yahoo.com
 Website : www.globalmining.in



TC-5323

ANNEXURE-42

17.	Acidity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23 rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.10	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	0.202	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.134	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	<0.05	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.

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 150 days, 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.
4. Total liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

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/R018
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical/Biological
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5006
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024

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	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

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

Analysis Report of Water Quality Data

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/RO18
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	: 5007
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002060F

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)	-	7.60	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	2400	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	1488	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	143.04	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	211.05	-	-
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	187.68	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	94.38	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	848.4	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	543.66	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.77	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	16.56	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	481.8	200	600

Note:

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





GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



TC-5323

ANNEXURE-43


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	0.11	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	0.218	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.202	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	<0.05	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:

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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete Jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

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/R018
- 3 Sample collected by : GLOBAL Environment & Mining Services
- 4 Particulars of sample collected : Grab Sampling
- 5 Sampling Procedure : GEMS-LD/SOP/32
- 6 Discipline : Chemical/Biological
- 7 Group : Pollution & Environment
- 8 Sample Type : Ground Water
- 9 Sample Code : 5007
- 10 Date of Sampling : 20.01.2024
- 11 Sample Received : 20.01.2024
- 12 Date of Analysis : 22.01.2024
- 13 Date of Analysis Completion : 27.01.2024
- 14 Report Issue Date : 06.02.2024


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	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

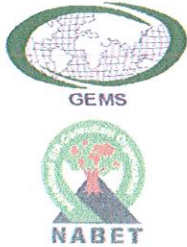
Note: Ab: Absent, NR: No Relaxation


Analysed By
 Priyanka B M
 Chemist




Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
 3rd Main Road, Basaveswara Badavane,
HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)
 Ph : 08394 355369
 e-mail : gems_hpt@yahoo.com
 Website : www.globalmining.in



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
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	: 5005
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002058F

Results

Sl. No	Parameters	Protocol	Unit	Mariyammana Halli Village (GW4)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.47	6.5 to 8.5	NR
2.	Conductivity	APHA 23rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	3600	-	-
3.	Total Dissolved Solids	APHA 23rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	2160	500	2000
4.	Turbidity (NTU)	APHA 23rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.4	1	5
5.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	<1.0	-	-
6.	Sulphate as SO ₄	APHA 23rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	201.43	200	400
7.	Phosphorus as P	APHA 23rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	582.3	-	-
9.	Potassium as K	APHA 23rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	224.0	75	200
11.	Magnesium as Mg	APHA 23rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	52.87	30	100
12.	Total Hardness as CaCO ₃	APHA 23rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	592.0	200	600
13.	Chloride as Cl	APHA 23rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	855.76	250	1000
14.	Fluoride as F	APHA 23rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.77	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	19.86	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	525.6	200	600

Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 150 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 DGP's survey





GEMS

**GLOBAL ENVIRONMENT & MINING SERVICES**

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,**HOSAPETE – 583201**, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in




TC-5323

ANNEXURE-44


17.	Acidity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-34 to 2-36)	mg/L	Nil	-	-
18.	Total Iron as Fe	APHA 23rd Edition 2017 3500 Fe-B. (Pg. No.3-80 to 3-82)	mg/L	0.14	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	0.204	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	0.234	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	<0.05	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.
------------------	--


Analysed By
Priyanka B M
Chemist




Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

Note:

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	: 5005
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024

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	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

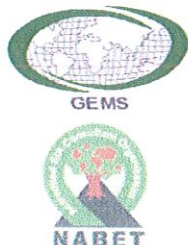
Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

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/R018
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5008
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002061F

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)	-	8.27	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	800	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	496	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	1.20	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	53.46	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	68.50	-	-
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	61.20	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	29.81	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	272.70	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	95.64	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.84	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	7.86	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	284.7	200	600

Note:

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





GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

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/R018
3	Sample collected by	: GLOBAL Environment & Mining Services
4	Particulars of sample collected	: Grab Sampling
5	Sampling Procedure	: GEMS-LD/SOP/32
6	Discipline	: Chemical
7	Group	: Pollution & Environment
8	Sample Type	: Ground Water
9	Sample Code	: 5008
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002061F

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)	-	8.27	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	μS/cm	800	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	496	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	1.20	-	-
6.	Sulphate as SO ₄	APHA 23 rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	53.46	200	400
7.	Phosphorus as P	APHA 23 rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23 rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	68.50	-	-
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	61.20	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	29.81	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	272.70	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	95.64	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.84	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	7.86	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	284.7	200	600

Note:

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





GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	: 5008
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024

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	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

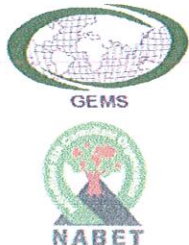
Note: Ab: Absent, NR: No Relaxation

Analysed By
Priyanka B M
Chemist



Authorised Signatory
K Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
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	: 5009
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002062F

Results

Sl. No	Parameters	Protocol	Unit	Gunda Village (GW6)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.74	6.5 to 8.5	NR
2.	Conductivity	APHA 23 rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	1000	-	-
3.	Total Dissolved Solids	APHA 23 rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	620	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	66.48	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	159.85	-	-
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	80.54	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	12.58	30	100
12.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	181.8	200	600
13.	Chloride as Cl	APHA 23 rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	80.54	250	1000
14.	Fluoride as F	APHA 23 rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	1.03	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	10.56	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22 nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	416.1	200	600

Note:

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





GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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	<0.05	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. Direct Air Acetylene Flame Method	mg/L	<0.1	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	<0.05	0.05	NR

Note: GW6: G Nagalapura 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:

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 150 days, Minerals 3 Months, Filter papers & Thinbles 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.
4. Total liability of our Laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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

Analysis Report of Water Quality Data

1	Name of the Industry	: BMM Ispat Ltd., Danapur, Hosapete Taluk, Vijayanagara District.
2	Customer Reference	: WO/ADMIN/FY24/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	: 5009
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024

Results

Sl. No	Parameters	Protocol	Unit	Gunda Village (GW6)	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	Color	APHA-23RD Edition-2120 C (Pg No. 2 -7 to 2-8)	Hazen	<5	5	15
2.	Cadmium as Cd	APHA-23RD Edition-3111 -B (Pg No.3 -20 to 3-21)	mg/L	<0.001	0.003	NR
3.	Total Coli form count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-
4.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation


Analysed By
Priyanka B M
Chemist




Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
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	: 5010
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024
15	Report Number	: ULR-TC532324000002063F

Results

Sl. No	Parameters	Protocol	Unit	RO Drinking Water	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.84	6.5 to 8.5	NR
2.	Conductivity	APHA 23rd Edition 2017 2510 A (Pg. No.2-56 to 2-58)	µS/cm	150	-	-
3.	Total Dissolved Solids	APHA 23rd Edition 2017 2540 C (Pg. No.2-69 to 2-70)	mg/L	94.0	500	2000
4.	Turbidity (NTU)	APHA 23rd Edition 2017 2130 B (Pg. No.2-13 to 2-15)	NTU	0.0	1	5
5.	Total Suspended Solids	APHA 23rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	0.00	-	-
6.	Sulphate as SO ₄	APHA 23rd Edition 2017 4500 -SO ₄ ²⁻ E (Page No. 4-199 to 4-200)	mg/L	11.37	200	400
7.	Phosphorus as P	APHA 23rd Edition 2017 4500-P D (Page No. 4-163 to 4-164)	mg/L	Nil	-	-
8.	Sodium as Na	APHA 23rd Edition 2017 Na 3500 B (Pg. No.3-99 to 3-100)	mg/L	5.33	-	-
9.	Potassium as K	APHA 23rd Edition 2017 K 3500 B (Pg. No.3-89 to 3-90)	mg/L	0.0	-	-
10.	Calcium as Ca	APHA 23rd Edition 2017 3500 Ca B (Pg. No.3-69 to 3-70)	mg/L	8.16	75	200
11.	Magnesium as Mg	APHA 23rd Edition 2017 3500-B Mg By calculation (Pg. No.3-86)	mg/L	4.95	30	100
12.	Total Hardness as CaCO ₃	APHA 23rd Edition 2017 2340 C (Page No. 2-48 to 2-50)	mg/L	40.4	200	600
13.	Chloride as Cl	APHA 23rd Edition 2017 4500 Cl- (Page No. 4-75 to 4-76)	mg/L	30.20	250	1000
14.	Fluoride as F	APHA 23rd Edition 2017 4500 F- D (Page No. 4-90 to 4-91)	mg/L	0.024	1	1.5
15.	Nitrate Nitrogen as NO ₃	APHA 23rd Edition 2017 4500 NO ₃ E (Pg. No.4-131 to 4-132)	mg/L	2.19	45	NR
16.	Total Alkalinity as CaCO ₃	APHA 22nd Edition 2017 2320 B (Pg. No.2-37 to 2-39)	mg/L	43.8	200	600

Note:

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





GEMS

**GLOBAL ENVIRONMENT & MINING SERVICES**

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,**HOSAPETE - 583201**, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in




TC-5323


ANNEXURE-47

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	0.07	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	<0.05	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 23rd Edition 2017 3500 Cr-B. (Pg. No.3-71 to 3-72)	mg/L	<0.05	0.05	NR
26.	Mercury as Hg	APHA 23 rd Edition 2017 3114 B. (Pg. No.3-36 to 3-40)	mg/L	Nil	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:

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 & Thinblades After analysis Disard.
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.
4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.
5. Recognised by Ministry of Environment, Forest and Climate Change for Laboratory
6. Recognised by Government of Karnataka, Maharashtra, Goa for DGPS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	: 5010
10	Date of Sampling	: 20.01.2024
11	Sample Received	: 20.01.2024
12	Date of Analysis	: 22.01.2024
13	Date of Analysis Completion	: 27.01.2024
14	Report Issue Date	: 06.02.2024

Results

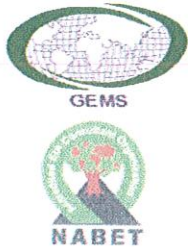
Sl. No	Parameters	Protocol	Unit	RO Drinking Water	Standards as per IS: 10500:2012	
					Desirable Limits	Permissible Limits
1.	colour	IS: 3025 (PART 4)- 1984, RA-2012 Platinum cobalt Method	Hazen	<5	5	15
2.	Odour	IS: 3025 (PART 5)- 1983, RA-2012, True Odour	-	Agreeable	Agreeable	Agreeable
3.	Total Residual 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	<0.001	0.003	NR
6.	Selenium as Se	APHA 23 rd Edition 3114 B. Direct Air Acetylene Flame Method	mg/L	<0.05	0.01	No Relaxation
7.	Cyanides (as CN)	APHA 23 rd Edition 4500 CN ⁻ (Pg. No.4-45 to 4-46)	mg/L	NA	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	<0.5	0.5	1.0
11.	Escherichia coli count	IS : 1622 : 1981	1 CFU/ 100 ml	Ab	Shall not be detectable in any 100ml sample	-

Note: Ab: Absent, NR: No Relaxation,

Analysed By
Priyanka B M
Chemist

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website : www.globalmining.in



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
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	: 19.01.2024
10	Sample Received	: 19.01.2024
11	Date of Analysis	: 20.01.2024
12	Date of Analysis Completion	: 24.01.2024
13	Report Issue Date	: 06.02.2024
14	Report Number	: ULR-TC532324000002041F

Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
		Sample code	-	4985	4986	4987	
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.59	7.51	7.67	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	8.0	14.0	9.0	<20
3.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	2.0	8.0	2.0	<10
4.	Chemical Oxygen Demand as COD	APHA 23 rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	19.6	38.8	19.6	<50
5.	Oil & Grease	APHA 23 rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	2.0	3.0	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:

- 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 & Thinbles 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 DGFS survey



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	: 19.01.2024
10	Sample Received	: 19.01.2024
11	Date of Analysis	: 20.01.2024
12	Date of Analysis Completion	: 24.01.2024
13	Report Issue Date	: 06.02.2024


Sl. No.	Parameters	Protocol	Unit	Results			As per KSPCB Std
				STP 45 KLD	STP-1 90 KLD	STP-2 90 KLD	
		Sample code	-	4985	4986	4987	
1.	Color	APHA 23 RD Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	5	5	5	-
2.	Odour	IS: 3025 (PART 5)- 1983, RA-2012, True Odour	-	Agree able	Agree able	Agree able	-
3.	Cyanides (as CN)	APHA 23 RD Edition 4500 CN- (Pg. No.4-45 to 4-46)	mg/L	BDL	BDL	BDL	-
4.	Phenolic Compounds (as C ₆ H ₅ OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	BDL	BDL	BDL	-
5.	Chromium (as Cr ⁶⁺)	APHA-23 RD Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	<0.001	<0.001	<0.001	-
6.	Ammonical nitrogen as N	IS:3025 (part 34)-1988, RA-2014, Nesslerization method	mg/L	1.46	0.62	1.08	-

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

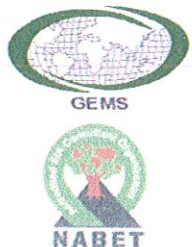
STP-2 90 KLD –Near Gunda Guest House


Analysed By
 Priyanka B M
 Chemist




Authorised Signatory
 K. Ramakrishna Reddy
 Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)
 3rd Main Road, Basaveswara Badavane,
HOSAPETE - 583201, Dist., Vijayanagara (Karnataka)
 Ph : 08394 355369
 e-mail : gems_hpt@yahoo.com
 Website : www.globalmining.in



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
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	: 20.01.2024
10	Sample Received	: 20.01.2024
11	Date of Analysis	: 22.01.2024
12	Date of Analysis Completion	: 27.01.2024
13	Report Issue Date	: 06.02.2024
14	Report Number	: ULR-TC532324000002064F

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	5011	5012	
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	8.66	8.52	6.5 to 9.0
2.	Total Suspended Solids	APHA 23 rd Edition 2017 2540 D (Pg. No.2-70 to 2-71)	mg/L	12.0	10.0	100
3.	Chemical Oxygen Demand as COD	APHA 23 rd Edition 2017 5220 C (Pg. No.5-18 to 5-19)	mg/L	28.6	19.8	250
4.	Oil & Grease	APHA 23 rd Edition 2017 5520 B (Pg. No.5-41 to 5-42)	mg/L	4.0	2.0	10

Note: BDL-Below detectable Limit.

INFERENCE: The Measured values are within the Limit.

Analysed By
Priyanka B M
 Chemist



Authorised Signatory
K. Ramakrishna Reddy
 Technical Manager

Note:

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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/RO18
- 3 Sample collected by : -
- 4 Particulars of sample collected : -
- 5 Sampling Procedure : -
- 6 Discipline : Chemical
- 7 Group : Pollution & Environment
- 8 Sample Type : **Surface Water**
- 9 Date of Sampling : -
- 10 Sample Received : -
- 11 Date of Analysis : -
- 12 Date of Analysis Completion : -
- 13 Report Issue Date : **06.02.2024**

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS -B
				Danayakanakere Upstream	Danayakanakere Downstream	
		Sample code				
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	-	-	6.5-8.5
2.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	-	-	3.0
3.	Fluorides as F	APHA 23 rd Edition 4500F- D (Pg. No.4-90 to 4-91)	mg/L	-	-	1.5
4.	Arsenic as As	APHA-23 rd Edition-3114 -B (Pg. No.3 -36 to 3-40)	mg/L	-	-	0.2
5.	Dissolved Oxygen	APHA 23 rd Edition 4500 C (Pg. No.4-146)	mg/L	-	-	>5.0
6.	Color	APHA 23 rd Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	-	-	300
7.	Cyanides (as CN)	APHA 23 rd Edition 4500 CN- (Pg. No.4-45 to 4-46)	mg/L	-	-	0.05
8.	Phenolic Compounds (as C ₆ H ₅ OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	-	-	0.005
9.	Chromium (as Cr ⁶⁺)	APHA-23 rd Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	-	-	1.0
10.	Anionic detergents (as MBAS)	APHA 23 rd Edition 5540 C (Pg. No.5-55 to 5-57)	mg/L	-	-	1.0
11.	Total Coliform Organisms					
	Total Coli forms	IS : 15185 : 2016	MPN/ 100 ml	-	-	500
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	-	-	-

Note: Water Sample not collected, Because No water inside Danayakanakere



Signature
Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist., Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

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 | : - |
| 10 | Sample Received | : - |
| 11 | Date of Analysis | : - |
| 12 | Date of Analysis Completion | : - |
| 13 | Report Issue Date | : 06.02.2024 |

Sl. No.	Parameters	Protocol	Unit	Results		IS 2296 - 1982 CLASS -B
				KempuHalla Upstream	KempuHalla Downstream	
		Sample code		-	-	
1.	pH	APHA 23 rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	-	-	6.5-8.5
2.	Biochemical Oxygen Demand as BOD (3 days at 27°C)	IS:3025 (part 44)-1993, Reaffirmed -2019	mg/L	-	-	3.0
3.	Fluorides as F	APHA 23 rd Edition 4500F D (Pg. No.4-90 to 4-91)	mg/L	-	-	1.5
4.	Arsenic as As	APHA-23 rd Edition-3114 -B (Pg. No.3 -36 to 3-40)	mg/L	-	-	0.2
5.	Dissolved Oxygen	APHA 23 rd Edition 4500 C (Pg. No.4-146)	mg/L	-	-	>5.0
6.	Color	APHA 23 rd Edition 2120 B (Pg. No.2-6 to 2-7)	Hazen	-	-	300
7.	Cyanides (as CN)	APHA 23 rd Edition 4500 CN (Pg. No.4-45 to 4-46)	mg/L	-	-	0.05
8.	Phenolic Compounds (as C ₆ H ₅ OH)	IS:3025 (part 43)-1992, RA-2014, Chloroform extraction method	mg/L	-	-	0.005
9.	Chromium (as Cr ⁶⁺)	APHA-23 rd Edition-3500 Cr B (Pg. No.3-71 to 3-72)	mg/L	-	-	1.0
10.	Anionic detergents (as MBAS)	APHA 23 rd Edition 5540 C (Pg. No.5-55 to 5-57)	mg/L	-	-	1.0
11.	Total Coliform Organisms,					
	Total Coli forms	IS : 15185 : 2016	MPN/ 100 ml	-	-	500
	Escherichia coli or E. coli	IS : 15185 : 2016	MPN/ 100 ml	-	-	-

Water Sample not collected, Because KempuHalla no Water Flowing.



Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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



GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,

HOSAPETE – 583201, Dist, Vijayanagara (Karnataka)

Ph : 08394 355369

e-mail : gems_hpt@yahoo.com

Website: www.globalmining.in

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	: 20.01.2024
10	Sample Received	: 20.01.2024
11	Date of Analysis	: 22.01.2024
12	Date of Analysis Completion	: 27.01.2024
13	Report Issue Date	: 06.02.2024

Sl. No.	Parameters	Protocol	Unit	Results	IS 2296 -1982 CLASS -B
				Tungabhadra dam	
				Sample Code	
1.	pH	APHA 23rd Edition 2017 4500 H+ B (Pg. No.4-95 to 4-99)	-	7.58	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 23rd Edition 4500F-D (Pg. No.4-90 to 4-91)	mg/L	BDL	1.5
4.	Arsenic as As	APHA-23 RD Edition-3114 -B (Pg. No.3 -36 to 3-40)	mg/L	<0.1	0.2
5.	Dissolved Oxygen	APHA 23 RD Edition 4500 C (Pg. No.4-146)	mg/L	6.0	>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	<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	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.

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

