COMPLIANCE REPORT

AS PER CONDITIONS STIPULATED IN THE ENVIRONMENTAL CLEARANCE 96/Parya/SEIAA/4604/2019, dated May 29th, 2020

Six Monthly Compliance Report (October-2020 to March-2021)

FOR

INTEGRATED PAINT PLANT AT PLOT NO. - B4 & B5 AT SANDILA INDUSTRIAL AREA PHASE – I, TEHSIL: SANDILA, DISTRICT: HARDOI, (U.P.).

SUBMITTED BY

M/s Berger Paints India Limited

Berger House-129, Park Street, Kolkata - 700017

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CHAPTER-1

INTRODUCTION AND PROJECT DESCRIPTION

Six monthly environmental compliance/status report is submitted for Integrated Paint manufacturing plant of **M/s Berger Paints India Limited.** for Oct-2020 to March-2021. The Project is located at Plot No. - B4 & B5, Sandila Industrial Area Phase- I, District: Hardoi (U.P.). Prior Environment Clearance was obtained from Ministry of Environment & Forests (MoEFCC) vide letter no.: **96/Parya/SEIAA/4604/2019, dated May 29th, 2020.** Consent to establish has already been obtained for the project Vide Ref No. - **108095/UPPCB/Unnao(LAB)/CTE/HARDOI/2020, dated 01/01/2021** for validity upto 31/12/2025. Copy of CTE is attached here as **Annexure-I**

Specific and general conditions stipulated in Environment Clearance are being complied during the construction phase.

Environmental mitigation measures described in Environmental Management Plan are being implemented during construction phase. M/s Berger Paints India Limited management team is fully conscious about Environmental Management and enhancing green belt development in project surrounding area.

Six monthly compliance/status reports for October 2020 to March 2021 for conditions stipulated in the Environmental Clearance letter issued by MoEF are enclosed.

CHAPTER - 2

COMPLIANCE OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE

Name of the Project: Integrated Paint manufacturing plant at Plot No. - B4 & B5 at Sandila Industrial Area Phase- I, District: Hardoi (U.P.) by **M/s Berger Paints India Limited.**

Clearance Letter No: 96/Parya/SEIAA/4604/2019, dated May 29th, 2020

Period of Compliance Report: (October 2020 to March 2021).

I. SPECIFIC CONDITIONS		
Sr. No.	**Statutory**	**Compliances**
1.	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	Not applicable as there is no forest land involved in the project.
2.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable, there is no wild life sanctuary within 10 km radius.
3.	The project proponent shall prepare a Site-Specific Conservation Plan and approved by the Chief Wildlife Warden. The recommendation of the approved Site-Specific Conservation Plan/ Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report. (in case of the presence of schedule species in the study area).	No schedule-I species is found in study area, hence this condition is not applicable.
4.	The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/Committee	The CTE (Consent to Establish) application has been Obtained from UPPCB. Copy of CTE attached as **Annexure-I**.
5.	The project proponent shall obtain authorization under the Hazardous and other waste management rules 2016 as amended from time to time.	The point is noted. Will be complied.

6.	The company shall strictly comply with the rules and guideline under manufacture, storage and import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals Shall be as per the Motors Vehicle Act (MVA),1989	The point is noted. Will be complied.
II. Air quality monitoring and preservation:		
1.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.	The base work for construction has been initiated. We will comply with this condition after commissioning of the plant.
2.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.	Point is noted and will be complied after operation and commissioning of the plant.
3.	The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameter relevant to the main pollutant released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emission) within and outside the plant area at least at four location (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.	Ambient Air Monitoring quality has been done at 4 locations; Monitoring Reports are attached as **Annexure-II.**
4.	To control source and the fugitive emissions, suitable pollution control device shall be installed to meet the prescribed norms and/or the NAAQS.	Ambient Air Monitoring quality has been done at 4 locations; Monitoring Reports are

	Sulphur content should not exceed 0.5% in the coal for use in coal fired boiler to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	attached as **Annexure-II.**
5.	Storage of raw materials, coal etc. shall be either stored in soils or in covered areas to prevent dust pollution and other fugitive emission.	Point is noted and same will be complied after commissioning of plant.
6.	National Emission Standards for Organic Chemicals manufacturing Industry issued by the Ministry vide G.S.R. No. 608(E) dated 21th July, 2010 and amended from time to time shall be followed.	Point is noted and same will be complied after commissioning of plant
7.	The National Ambient Air Quality Emission Standard issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.	Point is noted and is being complied with.
III. Water quality monitoring and preservation		
1.	The project proponent shall provide online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (applicable In case of the projects achieving ZLD).	On completion of the project and on commissioning, the unit will install OCMS for the effluent & web camera at drain carrying the effluent as per CPCB guidelines.
2.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD).	In no any case treated water will be discharged outside the premises as unit is based on Zero Liquid Discharge. ETP, RO & MEE will be installed to take care the proposed effluent load.
3.	The effluent discharge shall conform to the	Unit is based on Zero Liquid

	standards prescribed under the Environment Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the All/Water Act, whichever is more stringent.	Discharge strategy, no effluent is discharged outside the premises. However all standards will be complied in accordance to the need and requirement.
4.	Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA In this regard.	NOC for ground water abstraction has been obtained from CGWA. Copy of the same is attached as **Annexure-III**.
5.	Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.	Separate storm and process water drain are being provided.
6.	The company shall harvest rainwater from the roof of the buildings and storm water drains to recharge the ground water and utilize the same for Different industrial operations within the plant.	Rain water harvesting will be done at site. Captured water will be used for gardening, sanitation and other internal purposes.
7.	The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regards.	Adequate stack height for DG set will be provided as per norms and emission will be within CPCB norms.
IV. Noise monitoring and prevention		
1.	Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Point is noted and same will be complied.
2.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all	Acoustic enclosure will be provided with DG set and Noise level will be maintained within permissible limits.

	sources of noise generation.	
3.	The ambient noise levels should conform to the standards prescribed under E(P) A Rules,1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Point is noted and Copy of Ambient noise level attached as **Annexure-II**.
V. Energy Conservation measures		
1.	The energy sources for lighting purposes shall preferably be LED based.	Point is noted and same shall be complied.
VI. Waste management		
1.	Hazardous chemicals shall be stored in tank, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.	Point is noted and same shall be complied.
2.	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.	Point is noted and waste generated will be recycled in-house/ co-processed through authorised recyclers / disposal to CHWTSD vendor after commissioning of plant.
3.	The company shall undertake waste minimization measures as below. a. Metering and control of quantities of active ingredients to minimize waste. b. Reuse of by products from the process as raw materials or as raw material substitutes in other processes. c. Use of automated filling to minimize spillage. d. Use of close feed system into batch reactors. e. Venting equipment through vapour recovery system. f. Use of high pressure hoses for equipment clearing to reduce wastewater generation	Point is noted and same shall be complied.

VII. Green Belt		
1.	Green belt of 5-10 m width shall be developed in more than 33% of the total project area mainly along the plant periphery, in downward wind direction, and along road sides etc.	Unit is developing green belt as per the norms. (Approx. 33% of total area ie. 4.805 ha).
VIII. Safety, Public hearing and Human health issues		
1.	Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Condition noted and complied.
2.	The unit shall make the arrangement for protection of possible fire hazard during manufacturing process in material handling. Fire fighting system shall be as per the norms.	Condition noted and will be complied.
3.	The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act	The employees/operators will be provided with adequate Personal Protection Equipment (PPE) as per the norms of factory Act.
4.	Training shall be imparted to all employees on safety and health aspects of chemicals handling Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Condition noted and will be complied. Daily TBTs and job specific trainings would be conducted for staff/workers.
5.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of	Condition noted and complied. Labour hutment colony are being built by the construction agency near the site with all necessary facilities.

	the project.	
6.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Point is noted and will be complied.
7.	There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.	Unit has earmarked adequate space for parking of vehicles in the layout plan.
IX. Corporate Environment Responsibility		
1.	The project proponent shall comply with the provision contained in this Ministry OM vide F.No. 22-65/2017 – IA.III dated 1st may 2018, as applicable, regarding Corporate Environment Responsibility.	Point is noted and same shall be complied with in due time period.
2.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements /deviation / violation of the environment/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environment/forest/wildlife norms I conditions and / or shareholders/stake holder. The copy of the board resolution in this regard shall be submitted to the MoEF & CC as a part of six – monthly report.	Point is noted and company's environmental policy is well documented and made available to all stakeholders.
3.	As separate Environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to	Point is noted and shall be complied.

	the head of the organization.	
4.	Action plan for implementing EMP and environment conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environment protection measures shall be kept in separate account and not to be diverted for any other purpose. Year's wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the six Monthly Compliance Report.	Point is noted and shall be complied.
5.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Point is noted and shall be complied.
X. Miscellaneous		
1.	As proposed ZLD shall be achieved.	Point is noted and same will be complied after commissioning of plant.
2.	Under any circumstances no effluent of any kind be discharged outside the premises of Factory.	Point is noted and shall be complied.
3.	The project proponent shall make public the environmental clearance granted for their project along with the environmental condition and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Public notice has been published in two newspaper "Indian Express" on 27 August 2020 and "JanSatta" on 27 August 2020. Copy of the same is attached as **Annexure-IV (A) & (B).**
4.	The copies of the environmental clearance shall be submitted by the project proponent to the	Complied. Copy attached as **Annexure-V.**

	Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	
5.	The project proponent shall upload the status of the compliance of the stipulated environment clearance condition, including results of monitored data and in conditions, including results of monitored data on their website and update the same on half-yearly basis.	Point is noted and same is being complied.
6.	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Monitoring Reports are attached as **Annexure-II**.
7.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at environmental clearance portal.	Point is noted and complied.
8.	The project proponent shall submit the environmental statement for each financial year in form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Point is noted and same will be complied after commissioning of plant.
9.	The project proponent shall inform the Regional Office as well as the Ministry, the date	Point is noted and intimation has been submitted to the office of

	of development work and start of production operation by the project.	UP-SEIAA with a copy to RO, MOEF, Lucknow
10.	The project authorities must strictly adhere to the stipulation made by the State Pollution Control Board and the State Government.	Point is noted and same will be complied.
11.	The project proponent shall abide by all the commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Point is noted.
12.	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).	Point is noted.
13.	Concealing factual data or submission of false fabricated data may result in revocation of this environmental clearance and attract action under the provision of Environment (Protection) Act, 1986.	Point is noted and same will be complied.
14.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Point is noted
15.	The Ministry reverse the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Point is noted
16.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Point is noted
17.	The above conditions shall be enforced, inter-alia under the provisions of the Water	Point is noted

	(Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.	
18.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Point is noted.

CHAPTER-3

DETAILS OF ENVIRONMENTAL MONITORING

3.1 AMBIENT AIR QUALITY MONITORING

3.1.1 Ambient air Quality Monitoring Stations

Ambient air quality monitoring has been carried out near Main Gate (Plant Premises) (Station No: 1), Village - Jamsara (Station No: 2), Village - Som (Station No: 3) and near Umartali Railway Station (Station No: 4) to assess the ambient air quality. Three stations have been selected at 120° from the center. This will enable to have analytical understanding about air quality and the changes in the air environment in the study area with respect to the condition prevailing. Sampling at site was done from 26.01.2021 to 27.01.2021. The locations of the ambient air quality monitoring stations are given in Table 3.1: -

Table 3.1,

Details of Ambient Air Quality Monitoring Stations

Sr. No	Location Code	Location Name/Description	Environmental Setting of surrounding
1.	AAQ-1	Near Main Gate (Plant Premises) (Station No: 1)	Industrial
2.	AAQ-2	Village – Jamsara (Station No: 2)	Residential
3.	AAQ-3	Village - Som (Station No: 3)	Residential
4.	AAQ-4	Near Umartali Railway Station (Station No: 4)	Residential

AAQ-1: Near Main Gate (Plant Premises) **(Station No: 1)**

The sampler was placed near Main gate (Plant Premises) and was free from any obstructions. Surroundings of the sampling site represent industrial environmental setting.

AAQ- 2: Village - Jamsara (Station No: 2)

The sampler was placed in village Jamsara and was free from any obstructions. Surroundings of the sampling site represent residential environmental setting.

AAQ-3: Village - Som (Station No: 3)

The sampler was placed in Son village and it was also free from any obstructions. Surroundings of the sampling site represent residential environment setting.

AAQ-4: Near Umartali Railway Station (Station No: 4)

The sampler was placed near Umartali Railway Station and it was also free from any obstructions. Surroundings of the sampling site represent residential environment setting.

3.1.2 Ambient Air Quality Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Particulate Matter 2.5 ($PM_{2.5}$)
- Particulate Matter 10 (PM_{10})
- Sulphur Dioxide (SO_2)
- Oxides of Nitrogen (NOx)

The duration of sampling of $PM_{2.5}$, PM_{10}, SO_2 and NO_X was 24 hourly continuous sampling per day duration monitoring. The monitoring was conducted for one day at the location. This is to allow a comparison with the National Ambient Air Quality Standards.

The air samples were analyzed as per standard methods specified by Central Pollution Control Board (CPCB) and IS: 5182. The techniques used for ambient air quality monitoring and minimum detectable levels are given in **Table 3.2**.

Fine Particulate Sampler instruments have been used for monitoring Particulate Matter 2.5 ($PM_{2.5}$ i.e. <2.5 microns), and Respirable Dust Sampler with gaseous sampling attachment was used for sampling Respirable fraction (<10 microns), gaseous pollutants like SO_2, and NOx.

Table 3.2

Techniques used for Ambient Air Quality Monitoring

Sr. No	Parameter	Technique	Range of Testing
1.	Particulate Matter 2.5	Fine Particulate Sampler, Gravimetric Method	12 - 1200
2.	Particulate Matter 10	Respirable Dust Sampler, with cyclone separator, Gravimetric Method	12 - 500
	Sulphur dioxide	Modified West and Gaeke	6 - 1000
3.	Oxides of Nitrogen	Jacob & Hochheiser	6 - 750

3.1.3 Ambient Air Quality Monitoring Results

Ambient Air quality monitoring results for $PM_{2.5}$, PM_{10}, SO_2 and NO_X at all three locations are presented in **Table 3.3, 3.4 & 3.5** respectively.

Table 3.3

AAQ Results at Near Main Gate (Plant Premises) **(Station No: 1)**

Sr. No	Particulars	Protocol	Unit	Result	Range of testing /limit of detection	Standard as per NAAQS ; dated 18/11/ 2009
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**89.5**	12 - 1200	For 24 hour =100
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	IS: 5182 (Part-24): 2019	µg/m^3	**51.38**	12 - 500	For 24 hour =60
3	**Sulphur Dioxides (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**14.13**	6 - 1050	For 24 hour =80
4	**Oxides of nitrogen (NO_X)**	IS: 5182 (Part-6): 2006 Reaffirmed: 2017	µg/m^3	**22.18**	6 - 750	For 24 hour =80

Table 3.4

AAQ Results at Village - Jamsara (Station No: 2)

Sr. No	Particulars	Protocol	Unit	Result	Range of testing /limit of detection	Standard as per NAAQS ; dated 18/11/ 2009
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**79.2**	12 - 1200	For 24 hour =100
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	IS: 5182 (Part-24): 2019	µg/m^3	**45.15**	12 - 500	For 24 hour =60
3	**Sulphur Dioxides (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**13.05**	6 - 1050	For 24 hour =80
4	**Oxides of nitrogen**	IS: 5182 (Part-6): 2006	µg/m^3	**17.32**	6 - 750	For

	(NO_X)	Reaffirmed: 2017				24 hour =80

Table 3.5

AAQ Results at Village - Som (Station No: 3)

Sr. No	Particulars	Protocol	Unit	Result	Range of testing /limit of detection	Standard as per NAAQS ; dated 18/11/ 2009
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**78.3**	12 - 1200	For 24 hour =100
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	IS: 5182 (Part-24): 2019	µg/m^3	**43.22**	12 - 500	For 24 hour =60
3	**Sulphur Dioxides (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**12.85**	6 - 1050	For 24 hour =80
4	**Oxides of nitrogen (NO_X)**	IS: 5182 (Part-6): 2006 Reaffirmed: 2017	µg/m^3	**17.46**	6 - 750	For 24 hour =80

Table 3.6

AAQ Results near Umartali Railway Station (Station No: 4)

Sr. No	Particulars	Protocol	Unit	Result	Range of testing /limit of detection	Standard as per NAAQS ; dated 18/11/ 2009
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**86.4**	12 - 1200	For 24 hour =100
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	IS: 5182 (Part-24): 2019	µg/m^3	**49.97**	12 - 500	For 24 hour =60
3	**Sulphur Dioxides (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**14.26**	6 - 1050	For 24 hour =80
4	**Oxides of nitrogen (NO_X)**	IS: 5182 (Part-6): 2006 Reaffirmed: 2017	µg/m^3	**20.85**	6 - 750	For 24 hour =80

3.1.4 Discussion on Ambient Air Quality in the Study Area

The value of PM_{10} at Ambient Air Monitoring Station No: 1, 2 , 3 & 4 are 89.5 µg/m^3, 79.2 µg/m^3, 78.3 µg/m^3 & 86.4 µg/m^3 respectively which were within permissible limit of 100 µg/m^3 and $PM_{2.5}$ levels are 51.38 µg/m^3 at Station No: 1, 45.15 µg/m^3 at Station No: 2, 43.22 µg/m^3 at Station No: 3 and 49.97 µg/m^3 at Station No: 4 were also observed within permissible limit of 60 µg/m^3 (for residential, rural and other areas as stipulated in the National Ambient Air Quality Standards). SO_2 ranges between 12.85 µg/m^3 to 14.26 µg/m^3 and NO_X ranges between 17.32 µg/m^3 to 22.18 µg/m^3 was also observed within the corresponding stipulated limits (Limit for SO_2 and NO_X; 80 µg/m^3) at all of the 3 monitoring locations. Station wise variation of ambient air quality parameters has been graphically shown in Figure 3.1 to 3.4.

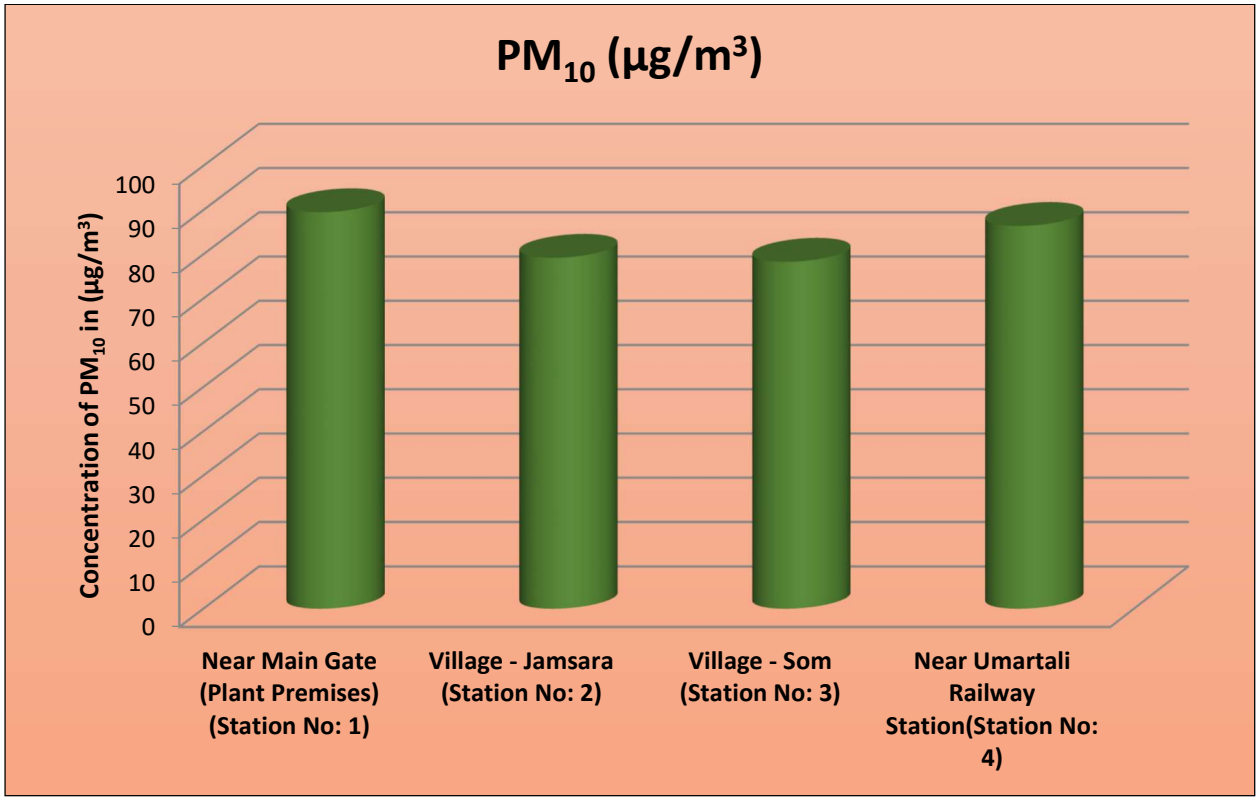

Figure 3.1: Graphs Showing PM_{10} Concentration at all sites

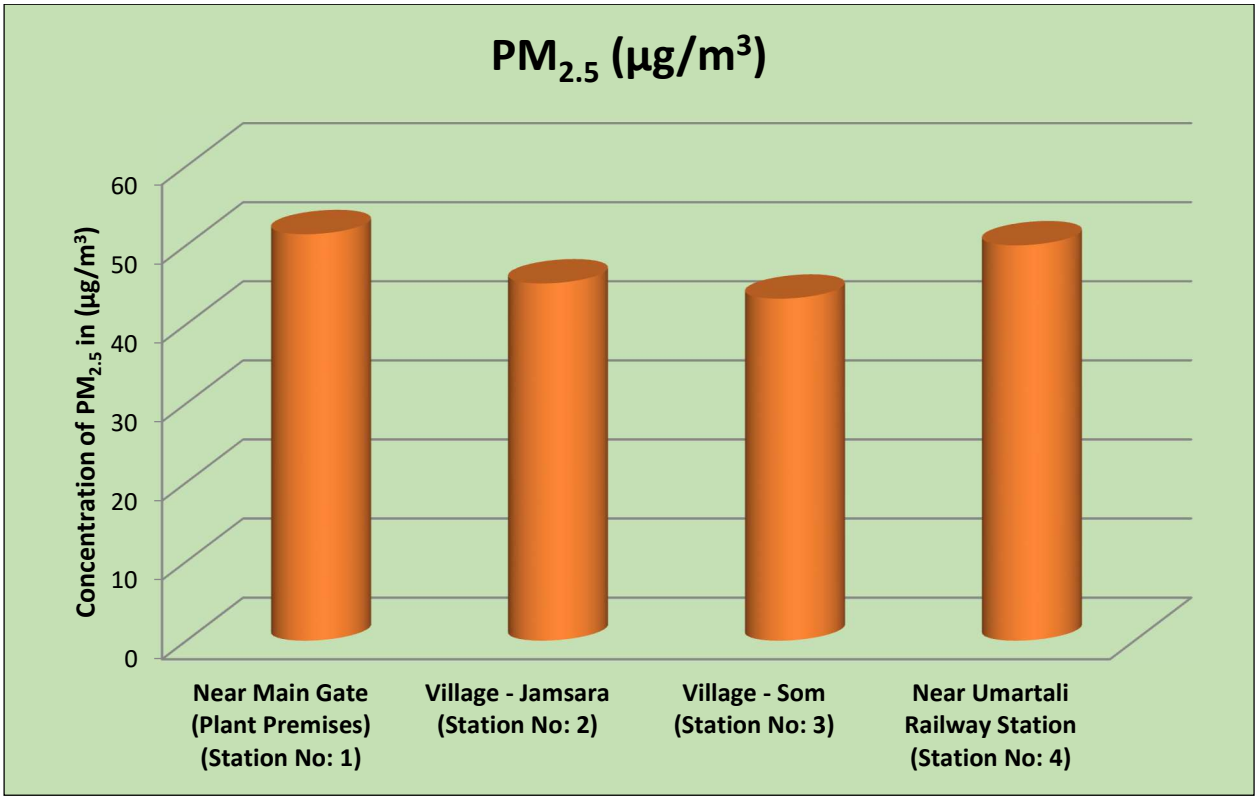

Figure 3.2: Graphs Showing $PM_{2.5}$ Concentration at all sites

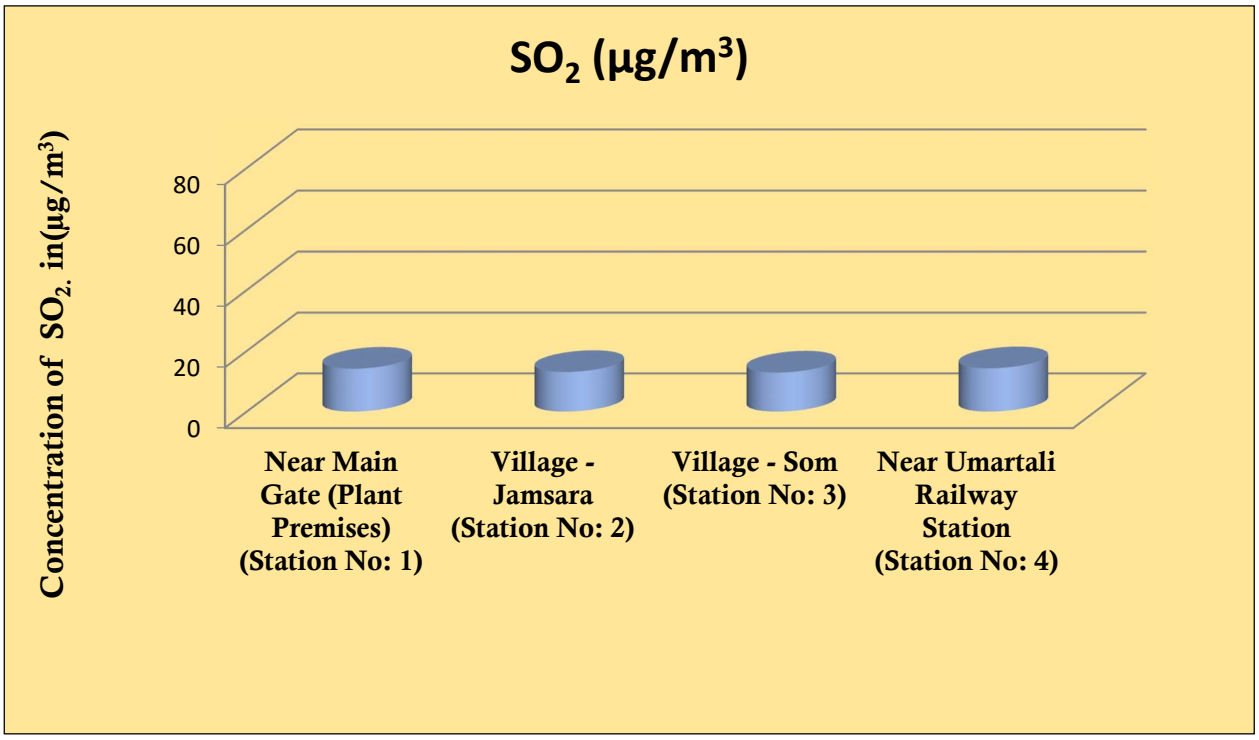

Figure 3.3: Graphs Showing SO_2 Concentration at all sites

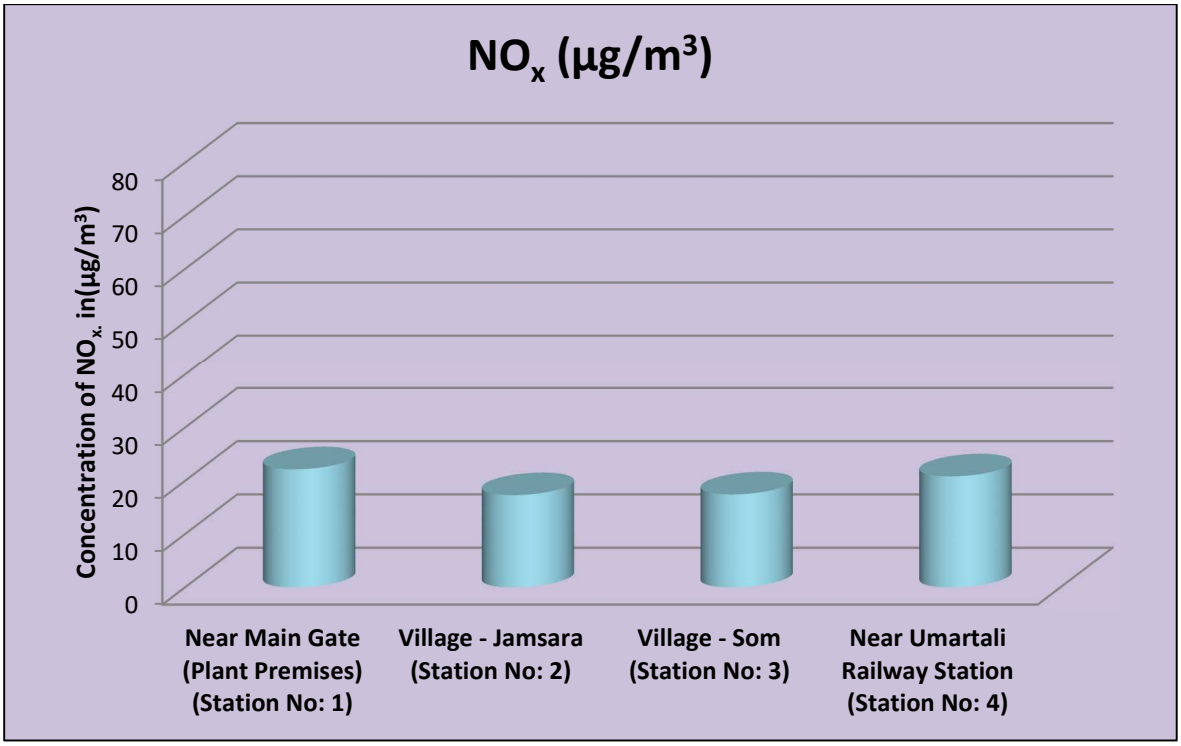

Figure 3.4: Graphs Showing NO_X Concentration at all sites

3.2 AMBIENT NOISE MONITORING

3.2.1 Ambient Noise Monitoring Locations

The main objective of noise monitoring in the study area is to assess the present ambient noise levels near project site due to various construction activities and increased vehicular movement. A preliminary reconnaissance survey has been undertaken to identify the major noise generating sources in the area. Monitoring was done from 26.01.2021 to 27.01.2021. Ambient noise monitoring was conducted at 2 location as given in **Table 3.6**.

Table 3.6

Details of Ambient Noise Monitoring Stations

Sr. No	Location Code	Location name and description	Present Land use
1.	NQ-1	Near Main Gate	Industrial
2.	NQ-2	Village -Som	Residential

3.2.2 Methodology of Noise Monitoring

Noise levels were measured using sound level meter. Noise level monitoring was carried out continuously for 24-hours with one-hour interval starting at 06:00 hrs to 06:00 hrs next day.

The noise levels were monitored on working days only. During each hour Leq were directly computed by the instrument based on the sound pressure levels. Monitoring was carried out at 'A' response.

3.2.3 Ambient Noise Monitoring Results

The location wise ambient noise monitoring results is summarized in **Table 3.7**. The noise levels are graphically presented in **Figure 3.5**.

Table 3.7 Ambient Noise Monitoring Results

Ambient Noise Level					
Sr. No.	**Locations**	**Parameter**	**Unit**	**Results DAY TIME (6:00 AM – 10:00 PM)**	**Results NIGHT TIME (10:00 PM – 6:00 AM)**
1.	Near Main Gate	Equivalent sound level	dB(A)	**61.23**	**50.02**
2.	Village -Som	Equivalent sound level	dB(A)	**50.39**	**44.12**

3.2.4 Discussion on Ambient Noise Levels in the Study Area

Day Time Noise Levels (L_{day}):

The day time noise level at monitoring station were found 61.23 – 50.39 dB (A), which is within limits prescribed for industrial area i.e. 75 db (A).

Night Time Noise Levels (L_{night}):

The night time noise level at monitoring station was found 50.02 – 44.12 dB (A), which is within limit prescribed for industrial area i.e. 70 dB (A).

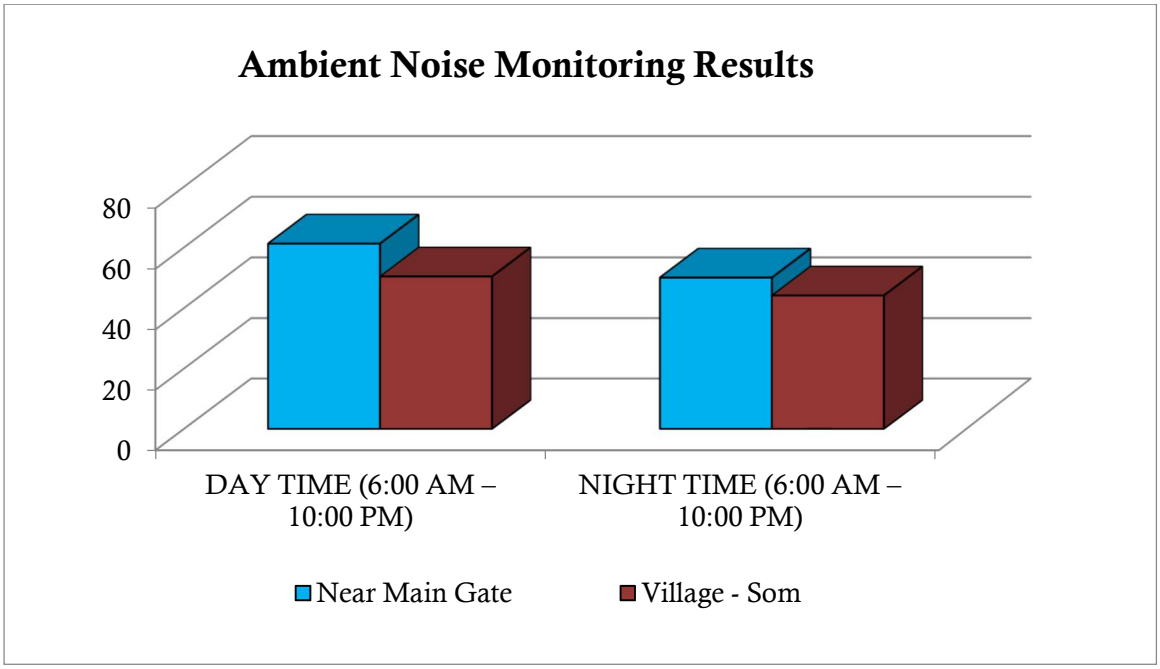

Figure 3.5: Day and Night Time noise Level

3.3 GROUND WATER QUALITY MONITORING

3.3.1 Ground water Quality Monitoring Locations

Keeping in view the importance of ground water, sample of ground water was collected from the project site for the assessment of impacts of the project on the groundwater quality.

Water sample was collected from the project site. The sample was analyzed for various parameters to compare with the standards for Ground water as per IS: 10500 for Groundwater sources. The details of water sampling locations are given in **Table 3.8.**

Table 3.8

Details of Water Quality Monitoring Station

Sr. No	Location Code	Location name and description	Date of Monitoring
1.	GW-1	**Ground Water**	**27th January, 2021**

3.3.2 Methodology of ground water Quality Monitoring

Sampling of ground water was carried out on 27.01.2021. Sample was collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample was properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures. **Sample for chemical analysis was collected in polyethylene carboys. Sample collected for metal content were acidified to <2 pH with 1 ml HNO_3. A sample for bacteriological analysis was collected in sterilized glass bottles.**

Soon after the completion of sampling, chain of custody sheets for the samples are filled in and then they were transported by road to Environmental & Technical Research Centre, Lucknow for further analysis. Proper care was taken during packing and transportation of samples. All the samples reached the central laboratory within the holding times for different parameters. After ensuring the same the samples was forwarded immediately for analysis.

The samples was analysed as per the standard procedures specified in 'Standard Methods for the Examination of Water and Wastewater' published by American Public Health Association (APHA) and CPCB. The analytical techniques and the test methods adopted for testing of ground water is given in **Table 3.9.**

3.3.3 Ground water Quality Monitoring Results

The detailed Ground water quality monitoring results are presented in **Table 3.9**

Table 3.9: Ground water Quality Results at Hand pump (within premises)

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500 : 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	**Colour**	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	**<5.0**	5 - 100	5	15
2	**Odour**	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	**Agreeable**	Qualitative	Agreeable	Agreeable
3	**pH**	-	APHA 23rd Ed. 2017-4500 H^+	**7.6**	1 - 14	6.5-8.5	No Relaxation
4	**Turbidity**	NTU	APHA 23rd Ed. 2017-2130 B	**BDL**	2 - 40	1	5
5	**Total Hardness as $CaCO_3$**	mg/l	APHA 23rd Ed. 2017-2340 C	**268.0**	5 - 5000	200	600
6	**Alkalinity as $CaCO_3$**	mg/l	APHA 23rd Ed. 2017-2320 B	**324.0**	2 - 1000	200	600
7	**Calcium as Ca**	mg/l	APHA 23rd Ed. 2017-3500 Ca, B IS: 3025 (Part-40): 1991 Reaffirmed: 2019	**41.68**	2 - 900	75	200
8	**Magnesium as Mg**	mg/l	APHA 23rd Ed. 2017-3500 Mg, B	**39.85**	0.2 - 400	30	100
9	**Chloride as Cl**	mg/l	APHA 23rd Ed. 2017-4500-Cl^- B	**32.03**	2 - 2000	250	1000
10	**Fluoride as F**	mg/l	APHA 23rd Ed. 2017-4500 F^- C	**0.38**	0.02 - 10	1.0	1.5
11	**Total Dissolved Solids (TDS)**	mg/l	APHA 23rd Ed. 2017-2540 C IS: 3025 (Part-16): 1984 Reaffirmed: 2017	**392.8**	10 - 10000	500	2000
12	**Sulphate as SO_4**	mg/l	APHA 23rd Ed. 2017-4500- SO_4^{2-}	**19.23**	1 - 800	200	400
13	**Nitrate as NO_3**	mg/l	APHA 23rd Ed. 2017-4500- NO_3^- IS: 3025 (Part-34): 1986 Reaffirmed: 2019	**BDL**	1.0 - 150	45	No Relaxation
14	**Total Chromium**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 -10	0.05	No Relaxation
15	**Zinc as Zn**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 15	5	15
16	**Copper as Cu**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 10	0.05	1.5
17	**Cadmium as Cd**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 2	0.003	No Relaxation
18	**Nickel as Ni**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 10	0.02	No Relaxation
19	**Manganese as Mn**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 - 5	0.1	0.3
20	**Iron as Fe**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**0.177**	0.05 - 10	0.3	No Relaxation
21	**Lead as Pb**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.01 - 10	0.01	No Relaxation
22	**Arsenic as As**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.02 - 2	0.01	0.05
23	**Mercury as Hg**	µg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.5 - 1000	1.0	No Relaxation

SOIL MONITORING

3.3.4 Soil Monitoring Locations

The objective of the soil monitoring is to identify the impacts of ongoing project activities on soil quality and also predict impacts, which have arisen due to execution of various construction activities. Accordingly, a study of assessment of the soil quality has been carried out.

To assess impacts of ongoing project activities on the soil in the area, the Physico-chemical characteristics of soils were examined by obtaining soil samples from selected points and analysis of the same. Single sample of soil was collected from the project site for studying soil characteristics, the location of which is listed in **Table 3.10**.

Table 3.10

Details of Soil Monitoring Stations

Sr. No	Location Code	Location name and description
1.	SQ-1	Near Main Gate (Within Premises)

3.3.5 Methodology of Soil Monitoring

The sampling has been done in line with IS: 2720 & Methods of Soil Analysis, Part-1st, 2nd Edition, 1986 of American Society for Agronomy and Soil Science Society of America. The homogenized samples were analyzed for physical and chemical characteristics (physical, chemical and heavy metal concentrations). The soil samples were collected on 27.01.2021.

The samples have been analyzed as per the established scientific methods for Physico-chemical parameters. The heavy metals have been analyzed by using Atomic Absorption Spectro-photometer.

3.3.6 Soil Monitoring Results

Single sample of soil is collected from the site to check the quality of soil of the study area. The Physico-chemical characteristics of the soil, as obtained from the analysis of the soil sample, are presented in **Table 3.11**.

Table 3.11

Physico-Chemical Characteristics of Soil at Near Main Gate

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection
1	**pH**	-	IS: 2720 (Part-26): 1987 Reaffirmed: 2016	**7.4**	1 - 14
2	**Electrical Conductivity**	(µs/cm)	IS: 14767 : 2000 Reaffirmed: 2016	**1086.0**	1 - 40000
3	**Moisture Contents**	(%)	IS: 2720 (Part-2): 1973 Reaffirmed: 2015	**3.56**	1 - 50
4	**Copper as Cu**	(mg/kg)	ETRC/LABSOPS/07 Issue. 1 Dated. 10.08.2015	**0.56**	0.3 - 500
5	**Zinc as Zn**	(mg/kg)	ETRC/LABSOPS/08, ISSUE NO.1 Dated 10.08.2015	**2.02**	1 - 500
6	**Iron as Fe**	(mg/kg)	ETRC/LABSOPS/09, ISSUE NO.1 Dated 10.08.2015	**15.43**	5 - 500
7	**Manganese as Mn**	(mg/kg)	ETRC/LABSOPS/09, ISSUE NO.1 Dated 10.08.2015	**6.08**	5 - 500
8	**Sulphur**	(mg/kg)	IS: 14685: 1999 Reaffirmed: 2014	**13.88**	5 - 100

3.3.7 Discussion on Soil Characteristics in the Study Area

The soil in study area is characterized by moderate organic content. The soil quality in the project area has not been affected by the project activities

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TC-5469

ETRCPM14/TES-REP/FT/17

TEST REPORT
WATER ANALYSIS

Test Report Ref No.: ETRC/GW/2110/2021	**Date of Report :** 30/01/2021
Name /Address/Type of Industry	**M/s Berger Paints India Limited** **B-4, B-5, Industrial Area** **Sandila Phase-1** **District: Hardoi (U.P.)**

SAMPLE DETAILS

1	Water/ Waste Water	Ground Water	5	Packing Condition	Sealed
2	Sample Description	**Ground Water**	6	Sample Collected By	ETRC, Lucknow
3	Sample received date	27.01.2021	7	Analysis Start Date	27.01.2021
4	Sample Quantity	5.0 litre	8	Analysis End Date	30.01.2021

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500 : 2012	
						Desirable	Permissible
	Physico-chemical Parameters						
1	**Colour**	Hazen	IS: 3025 (Part-4): 1983 Reaffirmed: 2017	**<5.0**	5 - 100	5	15
2	**Odour**	-	IS: 3025 (Part-5): 1983 Reaffirmed: 2017	**Agreeable**	Qualitative	Agreeable	Agreeable
3	**pH**	-	APHA 23rd Ed. 2017-4500 H^+	**7.6**	1 - 14	6.5-8.5	No Relaxation
4	**Turbidity**	NTU	APHA 23rd Ed. 2017-2130 B	**BDL**	2 - 40	1	5
5	**Total Hardness as $CaCO_3$**	mg/l	APHA 23rd Ed. 2017-2340 C	**268.0**	5 - 5000	200	600
6	**Alkalinity as $CaCO_3$**	mg/l	APHA 23rd Ed. 2017-2320 B	**324.0**	2 - 1000	200	600
7	**Calcium as Ca**	mg/l	APHA 23rd Ed. 2017-3500 Ca, B IS: 3025 (Part-40): 1991 Reaffirmed: 2019	**41.68**	2 - 900	75	200
8	**Magnesium as Mg**	mg/l	APHA 23rd Ed. 2017-3500 Mg, B	**39.85**	0.2 - 400	30	100
9	**Chloride as Cl**	mg/l	APHA 23rd Ed. 2017-4500-Cl^- B	**32.03**	2 - 2000	250	1000
10	**Fluoride as F**	mg/l	APHA 23rd Ed. 2017-4500 F^- C	**0.38**	0.02 - 10	1.0	1.5
11	**Total Dissolved Solids (TDS)**	mg/l	APHA 23rd Ed. 2017-2540 C IS: 3025 (Part-16): 1984 Reaffirmed: 2017	**392.8**	10 - 10000	500	2000
12	**Sulphate as SO_4**	mg/l	APHA 23rd Ed. 2017-4500- SO_4^{2-}	**19.23**	1 - 800	200	400
13	**Nitrate as NO_3**	mg/l	APHA 23rd Ed. 2017-4500- NO_3^- IS: 3025 (Part-34): 1986 Reaffirmed: 2019	**BDL**	1.0 - 150	45	No Relaxation
14	**Total Chromium**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 -10	0.05	No Relaxation
15	**Zinc as Zn**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 15	5	15

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16	**Copper as Cu**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 10	0.05	1.5
17	**Cadmium as Cd**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 2	0.003	No Relaxation
18	**Nickel as Ni**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 – 10	0.02	No Relaxation
19	**Manganese as Mn**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.05 - 5	0.1	0.3
20	**Iron as Fe**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**0.177**	0.05 - 10	0.3	No Relaxation
21	**Lead as Pb**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.01 - 10	0.01	No Relaxation
22	**Arsenic as As**	mg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.02 - 2	0.01	0.05
23	**Mercury as Hg**	µg/l	APHA 23rd Ed. 2017-3120 B (ICP-OES)	**BDL**	0.5 - 1000	1.0	No Relaxation

BDL=Below Detection Limit

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(Sandeep Kr Verma)
Lab-Incharge

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ETRCPM14/TES-REP/FT/37

TEST REPORT
AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/3001/8957/2021		**Date of Report :** 30.01.2021	
Name /Address/Type of Industry		**M/s Berger Paints India Limited B-4, B-5, Industrial Area Sandila Phase-1 District: Hardoi (U.P.)**	
Monitored by		**ETRC, Lucknow**	
Location of Sampling points		**Near Main Gate (Plant Premises)**	
Sr. No.	**GENERAL OBSERVATIONS**	**DETAILS-PM_{10}**	**DETAILS-$PM_{2.5}$**
1(a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	52	52
(d)	Average ambient temperature (^{o}C)	18	18
(e)	Time of Sampling Started (Hours)	08:56 am (26.01.2021)	08:56 am (26.01.2021)
(f)	Time of Sampling completed (Hours)	08:38 am (27.01.2021)	08:38 am (27.01.2021)
(g)	Total time of sampling (Minutes)	24 hour (1414 minutes)	24 hour (1414 minutes)
2	Average Air sampling rate for PM (m^3/minute)	1.14	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	**TOTAL VOLUME OF AIR SAMPLED** • PM (m^3) • GAS (Liter)	 • 1611.504 • 706.8	 • 23.552

TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Range of testing /limit of detection
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**89.5**	12 - 1200
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	CPCB Guidelines, Vol. 1	µg/m^3	**51.38**	12 - 500
3	**Sulphur Dioxide (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**14.13**	6 - 1000
4	**Oxides of Nitrogen (NO_X)**	IS: 5182 (Part-6): 2006 Reaffirmed: 2017	µg/m^3	**22.18**	6 - 750

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Lab-Incharge

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TEST REPORT
AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/3001/8958/2021		**Date of Report :** 30.01.2021	
Name /Address/Type of Industry		**M/s Berger Paints India Limited B-4, B-5, Industrial Area Sandila Phase-1 District: Hardoi (U.P.)**	
Monitored by		**ETRC, Lucknow**	
Location of Sampling points		**Village: Jamsara**	
Sr. No.	**GENERAL OBSERVATIONS**	**DETAILS-PM_{10}**	**DETAILS-$PM_{2.5}$**
1(a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	52	52
(d)	Average ambient temperature (^{o}C)	18	18
(e)	Time of Sampling Started (Hours)	09:15 am (26.01.2021)	09:15 am (26.01.2021)
(f)	Time of Sampling completed (Hours)	08:52 am (27.01.2021)	08:52 am (27.01.2021)
(g)	Total time of sampling (Minutes)	24 hour (1409 minutes)	24 hour (1409 minutes)
2	Average Air sampling rate for PM (m^3/minute)	1.085	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	**TOTAL VOLUME OF AIR SAMPLED** • PM (m^3) • GAS (Liter)	 • 1528.548 • 704.4	 • 23.475

TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Range of testing /limit of detection
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**79.2**	12 - 1200
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	CPCB Guidelines, Vol. 1	µg/m^3	**45.15**	12 - 500
3	**Sulphur Dioxide (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**13.05**	6 - 1000
4	**Oxides of Nitrogen (NO_X)**	IS: 5182 (Part-6): 2006 Reaffirmed: 2017	µg/m^3	**17.32**	6 - 750

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TEST REPORT
AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/3001/8959/2021		**Date of Report :** 30.01.2021	
Name /Address/Type of Industry		**M/s Berger Paints India Limited B-4, B-5, Industrial Area Sandila Phase-1 District: Hardoi (U.P.)**	
Monitored by		**ETRC, Lucknow**	
Location of Sampling points		**Village: Som**	
Sr. No.	**GENERAL OBSERVATIONS**	**DETAILS-PM_{10}**	**DETAILS-$PM_{2.5}$**
1(a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	52	52
(d)	Average ambient temperature (^{o}C)	18	18
(e)	Time of Sampling Started (Hours)	09:22 am (26.01.2021)	09:22 am (26.01.2021)
(f)	Time of Sampling completed (Hours)	09:09 am (27.01.2021)	09:09 am (27.01.2021)
(g)	Total time of sampling (Minutes)	24 hour (1416 minutes)	24 hour (1416 minutes)
2	Average Air sampling rate for PM (m^3/minute)	1.125	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	**TOTAL VOLUME OF AIR SAMPLED** • PM (m^3) • GAS (Liter)	 • 1593.0 • 708.0	 • 23.601

TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Range of testing /limit of detection
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**78.3**	12 - 1200
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	CPCB Guidelines, Vol. 1	µg/m^3	**43.22**	12 - 500
3	**Sulphur Dioxide (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**12.85**	6 - 1000
4	**Oxides of Nitrogen (NO_X)**	IS: 5182 (Part-6): 2006 Reaffirmed: 2017	µg/m^3	**17.46**	6 - 750

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TEST REPORT
AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/3001/9008/2021		**Date of Report :** 30.01.2021	
Name /Address/Type of Industry		**M/s Berger Paints India Limited B-4, B-5, Industrial Area Sandila Phase-1 District: Hardoi (U.P.)**	
Monitored by		**ETRC, Lucknow**	
Location of Sampling points		**Near Umartali Railway Station**	
Sr. No.	**GENERAL OBSERVATIONS**	**DETAILS-PM_{10}**	**DETAILS-$PM_{2.5}$**
1(a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	52	52
(d)	Average ambient temperature (^{o}C)	18	18
(e)	Time of Sampling Started (Hours)	09:39 am (26.01.2021)	09:39 am (26.01.2021)
(f)	Time of Sampling completed (Hours)	09:26 am (27.01.2021)	09:26 am (27.01.2021)
(g)	Total time of sampling (Minutes)	24 hour (1429 minutes)	24 hour (1429 minutes)
2	Average Air sampling rate for PM (m^3/minute)	1.105	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	**TOTAL VOLUME OF AIR SAMPLED** • PM (m^3) • GAS (Liter)	 • 1579.266 • 714.6	 • 23.816

TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Range of testing /limit of detection
1	**Particulate matters size less than 10 µm (PM_{10})**	IS: 5182 (Part-23): 2006 Reaffirmed: 2017	µg/m^3	**86.4**	12 - 1200
2	**Particulate matters size less than 2.5 µm ($PM_{2.5}$)**	CPCB Guidelines, Vol. 1	µg/m^3	**49.97**	12 - 500
3	**Sulphur Dioxide (SO_2)**	IS: 5182 (Part-2): 2001 Reaffirmed: 2017	µg/m^3	**14.26**	6 - 1000
4	**Oxides of Nitrogen (NO_X)**	IS: 5182 (Part-6): 2006 Reaffirmed: 2017	µg/m^3	**20.85**	6 - 750

..... END OF REPORT.....

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- Complain register is available in our laboratory.

Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge

Environmental And Technical Research Centre ★ CHECKED

Authorized Signatory
(Ritu Garg)
QM

ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

Office & Laboratory: 2/261, Vishwas Khand, Gomti Nagar, Lucknow- 226 010 (U.P.)
Email : ETRCLTH@YAHOO.IN, Web: www.etrcindia.com
ISO 9001:2015, ISO 14001 : 2015, OHSAS 18001 : 2007
An Approved Laboratory from Ministry of Environment, Forest and Climate change, Govt. of India under EPA 1986

TEST REPORT
AMBIENT NOISE MONITORING AND ANALYSIS REPORT

Test Report Ref No.: ETRC/3001/8960/2021		**Date of Report :** 30.01.2021
Name /Address/Type of Industry		**M/s Berger Paints India Limited B-4, B-5, Industrial Area Sandila Phase-1 District: Hardoi (U.P.)**
Monitored by		**ETRC, Lucknow**
Sr. No.	**GENERAL INFORMATION**	**DETAILS**
(a)	Date of monitoring	26/01/2021 (6:00 AM) to 27/01/2021 (6:00 AM)
(b)	Sample Description	Ambient Noise
(c)	Parameter	Equivalent sound level
(d)	Environmental Condition	Normal

TEST RESULT

Ambient Noise Level				
Sr. No.	**Locations**	**Unit**	**Results DAY TIME (6:00 AM - 6:00 PM)**	**Results NIGHT TIME (10:00 PM - 6:00 AM)**
1	**Near Main Gate**	**dB(A)**	**61.23**	**50.02**
2	**Village: Som**	**dB(A)**	**50.39**	**44.12**

Noise Standards as per CPCB Schedule rule 3(1) and 4(1)			
Area Code	Category of Area/Zone	Limits 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 Zone	50	40

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ETRCPM14/TES-REP/FT/38

TEST REPORT
SOIL ANALYSIS

Test Report Ref No.: ETRC/3001/8961/2021	**Date of Report :** 30.01.2021
Name /Address/Type of Industry	**M/s Berger Paints India Limited** **B-4, B-5, Industrial Area** **Sandila Phase-1** **District: Hardoi (U.P.)**

SAMPLE DETAILS

1	Sampling Location	Near Main Gate	5	Packing Condition	Sealed
2	Sample Description	**Soil Sample**	6	Sample Collected By	ETRC, Lucknow
3	Sample received date	27.01.2021	7	Analysis Start Date	27.01.2021
4	Sample Quantity	1.0 kg	8	Analysis End Date	30.01.2021

TEST RESULT

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection
1	**pH**	-	IS: 2720 (Part-26): 1987 Reaffirmed: 2016	**7.4**	1 - 14
2	**Electrical Conductivity**	(µs/cm)	IS: 14767 : 2000 Reaffirmed: 2016	**1086.0**	1 - 40000
3	**Moisture Contents**	(%)	IS: 2720 (Part-2): 1973 Reaffirmed: 2015	**3.56**	1 - 50
4	**Copper as Cu**	(mg/kg)	ETRC/LABSOPS/07 Issue. 1 Dated. 10.08.2015	**0.56**	0.3 - 500
5	**Zinc as Zn**	(mg/kg)	ETRC/LABSOPS/08, ISSUE NO.1 Dated 10.08.2015	**2.02**	1 - 500
6	**Iron as Fe**	(mg/kg)	ETRC/LABSOPS/09, ISSUE NO.1 Dated 10.08.2015	**15.43**	5 - 500
7	**Manganese as Mn**	(mg/kg)	ETRC/LABSOPS/09, ISSUE NO.1 Dated 10.08.2015	**6.08**	5 - 500
8	**Sulphur**	(mg/kg)	IS: 14685: 1999 Reaffirmed: 2014	**13.88**	5 - 100

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