





Ref: MIREPL/119(A)//1916

Dated: 28th May, 2014

FORESTS REGIONS

Ministry of Environment & Forest North Eastern Regional Law-U-Sib, Lumbatngen Near M.T.C. Workshop Shillong 79302, Meghalaya

Subject

: Submission of six monthly compliance report for Construction of Hotelcum-Office-Complex at Guwahati, Assam for the period from October 13 to March 2014

Dear Sir,

With reference to the above mentioned subject, we humbly submit herewith the following document:

1. Compliance Report for the period from October 13' to March 14': As per Annexure A. along with

a. Ambient Air Analysis report, Noise Level Measurement Analysis Report, Stack Analysis Report, Water Test Report & Soil Test Report As per Annexure I

Mortin Eastard

Agrin Castering Rocald

Photographs of the construction site: As per Annexure 3.

Kindly acknowledge the receipt of the same.

Thanking you.

Yours faithfully, For MAXIM INFRASTRUCTURE & REAL ESTATE PVT. LTD.

**Authorised Signatory** 

Enclosed as above

C.C.: (i) Central Pollution Control Board, "Tum-Sir" Lower Motinagar, Near Fire Brigade HQ, Shillong 793014

Member Secretary-Pollution Control Board Bamunimaidam, Guwahati 781021, Assam

1st Floor, H.M. Towers, S.C. Goswami Road, Pan Bazar, Guwahati, Assam-781 001, India

Phone: +91-361-2638215/2638261, Fax: +91-361-2543756 Website:: www.hmgroup.net.in, e-mail:: mail@hmgroup.net.in







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  - a. Ambient Air Analysis report, Noise Level Measurement Analysis Report, Stack Analysis Report, Water Test Report & Soil Test Report : As per Annexure I
- 2. Photographs of the construction site: As per Annexure B.

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C.C.: (i) Central Pollution Control Board, "Tum-Sir" Lower Motinagar, Near Fire Brigade HQ, Shillong 793014

(ii) Member Secretary-Pollution Control Board Bamunimaidam, Guwahati 781021, Assam

# FOR THE PERIOD OF OCTOBER-2013 TO MARCH-2014

Name of The Company : M/s. Maxim Infrastructure & Real Estate Pvt. Ltd.

Project : Construction of Hotel cum- Office Complex at Guwahati, Assam.

Environmental : No. 21-1/2011-IA.III Dated 1<sup>st</sup> June, 2011.
Clearance Letter

#### PART A - SPECIFIC CONDITIONS:

#### I. Construction Phase:

NO.	CONDITIONS	COMPLIANCE STATUS
(i)	"Consent for Establishment" shall be obtained from Assam State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	"Consent for Establishment" is obtained from Assam State Pollution Control Board wide letter no. WB/GUW/T-2085/11-12/357/933 dated 29/9/2011 and already submitted to the Ministry.
(ii)	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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	All necessary facilities like temporary house, fuel for cooking, mobile toilets safe drinking facility, etc. are provided to construction labour.
(iii)	A First Aid Room will be provided in the project both during construction and operation of the project.	A First Aid Room having Stretcher & medicines is provided.
(iv)	All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.	All the topsoil excavated during construction activities are stored properly and use in horticulture/ landscape development within the project site.
(v) Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.  Solid wastes form of construction disposed in by Guwa		construction phase were disposed in the site approved
(vi)	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	Soil and ground water samples are being tested. Monitoring reports is enclosed as Annexure- I.
(vii)	Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.	Necessary precautions like, storing in impervious area, proper disposal, etc. are being taken to avoid leachate from Construction spoils, including bituminous material to contaminate watercourses by leaching into the ground

NO.	CONDITIONS	COMPLIANCE STATUS	
		water.	
(viii)	Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the Assam State Pollution Control Board.	Hazardous waste, if any generated, then it will be disposed as per applicable rules and norms with necessary approvals of the Assam State Pollution Control Board.	
(ix)	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.	<ul> <li>Low sulphur diesel fuel is being used in the Diesel generator set.</li> <li>Air &amp; noise monitoring were conducted within site to confirm parameters within standards norms.</li> <li>Monitoring report is enclosed as Annexure-I.</li> </ul>	
(x)	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken. DG set shall meet the CPCB norms.	Diesel required for the operating DG sets is procured from nearby petrol pump as and when required and is not stored in site, However to obtain permission of Petroleum & explosives Safety Organization (PESO), Kolkata is under process.	
(xi)	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	Good conditioned vehicle having Pollution chec certificate is hired for th bringing constructio materials and operated onliduring non-peak hours.	
(xii)	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ ASPCB.	<ul> <li>Ambient noise level and ambient air quality is being monitored regularly.</li> <li>Monitoring report is enclosed as Annexure-I.</li> <li>Control measures like CGI sheet surrounding the site, Good conditioned vehicles, wetting of road, etc. were adopted to reduce ambient air and noise pollution during construction phase.</li> </ul>	
(xiii)	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27 <sup>th</sup> August, 2003.	Fly ash based cement and bricks are being used in the construction.	
(xiv)	Ready mixed concrete must be used in building construction.	Ready mixed concrete is being used in building construction.	
(xv)	Storm water control and its re-use as per CGWB and BIS standards for various applications.	Rain water harvesting plan is already proposed and will be constructed accordingly.	

NO.	CONDITIONS	COMPLIANCE STATUS	
(xvi)	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Ready mixed concrete is being used in building construction to reduce water demand.	
(xvii)	Permission to draw ground water shall be obtained from the competent Authority prior to construction/ operation of the project.	As, location of the project site falls in safe category based on Ground Water Resource Estimation (GWRE) 2009, Permission to draw ground water is not required as per the Guidelines/Criteria for evaluation of proposals/ requests for ground water abstraction (with effect from 15/11/2012) of Central Ground Water Authority. However before commencement of operation we will take permission to draw ground water from CGWA.	
(xviii)	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	Dual plumbing line will be installed for the separation of grey and black water.	
(xix)	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.	Necessary arrangements with the done to control flow of showers, toilet flushing and drinking water fixtures. We are going for Leed Certification which enables us to adout high standards in terms water conservation and a types of resource conservation.	
Estimation (GWRE)   Permission to draw water is not required the Guidelines/Criteri evaluation of progrequests for ground abstraction (with effect 15/11/2012) of Central (Water Authority. He before commenceme operation we will permission to draw water from CGWA.    Water Authority. He before commenceme operation of grey and black water.   Dual plumbing line for separation of grey and black water.	windows will be used to reduce the electricity consumption and load on air conditioning. Glass specification: Glass code- KT155 DGU unit- 8mm glass 12 mm vaccum With thermal break and argon		
(xxi)	Conservation Building Code by using appropriate thermal	recommended in a Report on	

NO.	CONDITIONS	COMPLIANCE STATUS
(xxii) Opaque wall should meet prescriptive Energy Conservation Building Code wandatory for all airconditioned spaces for non-airconditioned spaces by use insulation material to fulfill requirement (xxiii) The approval of the competent authoristructural safety of the buildings adequacy of fire fighting equipments Building Code including protection meets.  (xxiv) Regular supervision of the above armonitoring should be in place all the phase, so as to avoid disturbance to the first twice of the provisions of Environment legal action shall be initiated against to the provision of	*	thermal insulation with insu board & 1.4mm vapour barrier technology.
(xxii)	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfill requirement.	Opaque wall shall be constructed as per Energy Conservation Building Code.
(xxiii)	The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightening etc.	- The approval of the the Assam Engineering Institute, Chandmari, Guwahati is obtained vide letter no. AEI/Proof Check/177, dated 02.06.2012 for structural safety of the buildings due to earthquake and approval of Fire department is obtained vide letter no. SFSO/FPW/GH-17/311/11, dated 07.08.2011 for the adequacy of fire fighting equipments.  - Lighting arrestor will be provided as per the guidelines.
(xxiv)	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.	Regular supervision is being carried out by qualified personnel.
(xxv)	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	Agreed.

## II. Operation Phase:

NO.	CONDITIONS	COMPLIANCE STATUS	
(i)	The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Treated affluent emanating from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated affluent shall conform to the norms and standards of the Assam State Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.	<ul> <li>Report of certified Sewage Treatment Plant (STP) whose prepared &amp; submitted after installation.</li> <li>Treated effluent will be recycled/ reused for the flushing and gardening purpose.</li> <li>Regular maintained of ST will be carried out to mitigate odour problem.</li> </ul>	
(ii)	The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.	<ul> <li>Solid waste will properly collected and segregated through different colours dust bins.</li> </ul>	

NO.	CONDITIONS	COMPLIANCE STATUS
		Biodegradable waste will be composted and use as manure for the plantation.     Dry/inert solid waste will be disposed through Guwahati Municipal Corporation.     We are in the process of proposing a tie-up with the Guwahati Municipal Corporation for the disposal of bio-degradable waste.
(iii)	Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Assam State Pollution Control Board.	Diesel Power generating sets will be kept in closed area having stack height of 2.75 m.     Low sulphur diesel will be used as a fuel.
(iv)	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	Low noise generating D.G. set will be placed with closed area to control noise levels.     Regular noise monitoring will be carried out.
(v)	The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.	Adequate green belt will develop and maintained within project site.
(vi)	Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.	Sufficient weep holes in the compound wall will be provided to ensure natural drainage of rain water.
(vii)	Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The bore well for rainwater recharging should be kept at least 5 mts. above the highest ground water table.	Rain water harvesting will be implemented at the scheme submitted.
(viii)	The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.	Ground water quality is being monitored regularly.
(ix)	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	<ul> <li>Security guard will be appointed to avoid traffic congestion near the entry and exit points.</li> <li>Around 9792.43 Sq.m. area for 180 no. of cars/vehicles parking spaces will be provided.</li> </ul>
(x)	A Report on the energy conservation measures confirming	A report on the energy

NO.	CONDITIONS	COMPLIANCE STATUS
	to energy conservation norms finalize by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.	conservation measures has already been submitted.
(xi)	Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.	repared incorporating details about chnology, R & U Factors etc and three months time.  The areas outside the building of the project design and should be in minissioning. Used CFLs and TFLs of prevailing guidelines/ rules of the void mercury contamination. Use of the to the extent possible.  The areas outside the building of the areas outside the building will be installed as defined in ASHRAE/IESNA Standard 90.1-2004, Exterior Lighting Section, without amendments.  Used CFLs and TFLs will be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.  Advance LED lights coupled with CFL will be used.  Regular maintained of STP will be carried out to prevent odour problems during operation phase.  The adequate distance between them ash air and passage of natural light, and onstructed.  The carried-out at source and osted. Adequate space shall be composted within site and used as manure for the
(xii)	Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.	will be carried out to prevent odour problems during
(xiii)	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	- Only one building is being
(xiv)	Water segregation shall be carried-out at source and organic shall be composted. Adequate space shall be provided within the complex.	through duel plumbing line.  Organic waste will be composted within site and

# PART - B. GENERAL CONDITIONS:

NO.	CONDITIONS	COMPLIANCE STATUS	
(i)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	along with monitored data is	
4.	Officials from the Regional Office of MOEF, Shillong who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional office of MOEF, Shillong.	We ensure to provide full cooperation, facilities and documents/data required by the Officials from the Regional Office of MOEF, Shillong during their inspection.      A complete set of all the documents submitted to	

NO.	CONDITIONS	COMPLIANCE STATUS	
	*** *** *** *** *** *** *** *** *** **	MoEF is forwarded to the CCF, Regional office of MOEF, Shillong.	
5.	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the Ministry.	Agreed with.	
6.	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	MoEF is forwarded to the CCF, Regional office of MOEF, Shillong.  Agreed with.	
7.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980, and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities	<ul> <li>Approval of Fire Department will be obtained before operation of the project.</li> <li>Forest Conservation Act and Wildlife (Protection) Act is not applicable as it is not a</li> </ul>	
8.	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.	Agreed with.	
9.	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Assam Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Shillong.	CCF, Regional office of MOEF, Shillong.  he Agreed with.  Agreed with.  Agreed with.  Agreed with.  For Statutory clearances like, - An approval for storage of diesel from Chief Controller of Explosives is under process Approval of Fire Department will be obtained before operation of the project Forest Conservation Act and Wildlife (Protection) Act is not applicable as it is not a forest land.  Agreed with.  Agreed with.	
10.	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.	Not Applicable.	
11.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter	representations were received from concerned	

NO.	CONDITIONS	COMPLIANCE STATUS
	shall also be put on the website of the company by the proponent.	Corporation, Urban Local Body and the Local NGO.  - Clearance letter is placed on the company's website i.e. www.hmgroup.net.in.
12. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO <sub>2</sub> , NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.  Body and the L  - Clearance lette the company's www.hmgroup.  - Status of compliance of MoEF, the respective Zonal Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO <sub>2</sub> , NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	stipulated EC conditions, including results of monitored data is uploaded on our website i.e. www.hmgroup.net.in and being updated periodically.  - Simultaneously is being	
13.	31st March in Form-V as is mandated to be submitted by the	Agreed with.

# ANNEXURE –I MONITORING REPORTS

Branch Office: House No. 7, Bishnu Rabha Path, Opp. Assam State Zoo. Guwahati-7810024 Mob No. 8811096201, e-mail: envisionghy@gmail.com RECOGNIZED BY POLLUTION CONTROL BOARD, ASSAM

#### AMBIENT AIR ANALYSIS REPORT

Date:	26/03/2014
Rep.No.	140326_14010007_01_066

#### Name & Address:

M/s. MAXIM INFRASTRUCTURE & REAL ESTATE PVT.LTD. OPP. SECRETARIAT PLAY GROUND G.S. ROAD, DISPUR, GHY-781006, ASSAM.

#### Ambient Locations:

- 1. Near GS Road (south west direction)
- 2. Near HT Tower (west direction)
- 3. Near Deep Bore Well (north east direction)

Date of Sampling: 22.03.2014

Date of Analysis: 24.03.2014

Sample Collected By: M/s. EEEPL

SR.NO.	PARAMETERS	LIMITS	RESULTS		
			1	2	3
1.	Duration of Survey (hours)	-	8	8	8
2.	PM <sub>10</sub> (μg/m <sup>1</sup> )	100	60	64	58
3.	PM <sub>2.5</sub> (μg/m <sup>1</sup> )	50	42	44	36
3.	NO <sub>x</sub> (µg/m <sup>1</sup> )	80	18.6	19.0	17.8
4.	SO <sub>2</sub> (μg/m <sup>3</sup> )	80	10.8	11.2	9.4

Method of Analysis Followed: I.S. 5182 Part I to XVIII

Opinion: All Parameters are within permissible limit

En-Vision Enviro Engineers Pvt. Ltd., Guwahati

(Quality control Manager)

End of Report

LAB/FM/07

Branch Office: House No- 7, Bishnu Rabha Path, Opp. Assam State Zoo. Guwahati-7810024 Mob No. 8811096201, e-mail: envisionghy@gmail.com RECOGNIZED BY POLLUTION CONTROL BOARD, ASSAM

### NOISE LEVEL MEASUREMENT ANALYSIS REPORT

Date:	26/03/2014
Rep.No.	140326_14010007_06A_067

#### Name & Address:

M/s. MAXIM INFRASTRUCTURE & REAL ESTATE PVT,LTD.

OPP. SECRETARIAT PLAY GROUND G.S. ROAD, DISPUR, GHY-781006, ASSAM.

#### Name of location:

- 1. Near GS Road (south west direction)
- 2. Near HT Tower (west direction)
- 3. Near Deep Bore Well (north east direction)

Date of Sample Collection: 22.03.2014

Sample Collected By: M/s. EEEPL

Code	Time	Unit	RESULTS		
			1	2	3
N <sub>1</sub>	10:45 a.m. to 11:35 a.m.	dB(A) in	55.4	56.9	55.0
		Leq.			

Opinion: All Parameters are within permissible limit

En-Vision Enviro Engineers Pvt. Ltd., Guwahati

(Quality Control Manager)

LAB/FM/08

**End of Report** 

Page 1 of

web-site : www.en-vision.in, e-mail : info@en-vision.in

Branch Office: House No- 7, Bishnu Rabha Path, Opp. Assam State Zoo. Guwahati-7810024 Mob No. 8811096201, e-mail: envisionghy@gmail.com RECOGNIZED BY POLLUTION CONTROL BOARD, ASSAM

#### STACK ANALYSIS REPORT

Date:	26/03/2014
Rep.No.	140326_14010032_02_068

#### Name & Address:

M/s. MAXIM INFRASTRUCTURE & REAL ESTATE PVT.LTD. OPP. SECRETARIAT PLAY GROUND G.S. ROAD, DISPUR, GHY-781006, ASSAM.

#### Stack Description:

Stack attached to DG SET 125 KVA

Date of Sampling: 22/03/2014

Date of Analysis: 24/03/2014 Sample Collected By: M/s. EEEPL

CODE	PARAMETERS	LIMITS	RESULTS	
S <sub>1</sub>	Temperature of Flue Gas ( ° C )		145	
S <sub>2</sub>	Average Flue Gas Velocity (m/sec)		5.05	
S <sub>3</sub>	Total Particulate Matter (g/KWh)	0.3	0.11	
S <sub>4</sub>	NO <sub>x</sub> (g/KWh)	9.2	1.39	

Method of Analysis Followed: I.S. 11255, part I to IV

Opinion: All Parameters are within permissible limit.

En-Vision Enviro Engineers Pvt. Ltd., Guwahati

(Quality Control Manager)

LAB/FM/04

- End of Report

Page 1 of 1



GAUHATI UNIVERSITY
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Professor Krishna Gopal Bhattacharyya, M. Sc., Ph.D. (London), DIC Coordinator, EIA Project, Gauhati University

> Ref. Proj-ongoing/26/Maxim Infra/2014/ W & S / Apr 12w Date 10/04/2014

#### TEST REPORT

Name & Address of Client	En-vision Enviro Engineers Pvt. ltd. 208, G-Tower, Shankheshwar Complex, Sagrampura, Surat-395002, Gujarat			
Name of the project or Sample ID	M/S Maxim Infrastructure & Real Estate Pvt. Ltd., Opp. Secretariat Play Ground, G.S. Road, Dispur, Dist: Kamrup, Guwahati Assam. (Reference: 130781_14080032_0)			
Description of sample	Water sample collected from the project site			
Date of Sampling	22/03/2014	Date of receipt of Sample	The second secon	
Sample Collected by	-	viro Engineers Pvt. Itd. Team	22/03/2014	

NO.	PARAMETERS FOR WATER	UNIT	RESULT	REFERENCE METHOD	Desirable limit as per IS	DETECTABLE
2.	pH Turklidit		8.02	Potentiometric	6.5-8.5	0.01
3.	Turbidity	NTU	0.5	Nephelometric	10	The second secon
Million American	TDS	mg/L	134.5	Dried at 185°C	2000	0.1
4.	Total hardness	mg/L	140.8	EDTA Titrimetric	600	0.1
5.	Calcium	mg/L	24.5	EDTA Titrimetric	200	0.1
6.	Magnesium	mg/L	19.9	EDTA Titrimetric	100	0.1
7.	Total Alkalinity	mg/L	210.8	Titrimetric	600	0.1
8.	Chlorides	mg/L	29.82	Argentometric	1000	0.1
9.	Sulphates	mg/L	31.74	Turbidimetric	The second secon	0.05
10.	Nitrates	mg/L	2.52	Spectrophotometric	400	0.05
11.	Flouride	mg/L	1.29	SPADNS Method	100	0.01
12.	Residual chlorine	mg/L	BDL	Iodometric	1.5	0.01
13.	Copper	mg/L	0.0834		0.2	0.1
14.	Iron	mg/L	0.5650	Atomic Absorption	1.5	0.0001
15.	Cadmium	mg/L	0.1154		1.0	0.0001
16.	Lead	mg/L			0.01	0.0001
17.	Zinc	mg/L	0.0283		0.05	0.0001
18.	Chromium	CONTRACTOR OF THE PARTY OF THE	0.4325		15	0.0001
19.	Manganese	mg/L	0.0564		0.05	0.0001
20.	Selenium	mg/L	0.1282		0.3	0.0001
21.	DO	mg/L	0.0024		0.01	0.0001
22.	BOD	mg/L	1.6	Azide modification		0.1
23.	COD	mg/L	26.7	3 Day at 27oC		0.1
	COD	mg/L	39.2	Dichromate Reflux		0.1

For EIA Project, Gauhati University

EIA Project

Gauhati University

KBBhotlachenyya 10/04/2014

K G Bhattacharyya Coordinator



# **GAUHATI UNIVERSITY**

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Coordinator, EIA Project, Gauhati University

Ref. Proj-ongoing/26/Maxim Infra/2014/ W & S / Apr 12s Date 10/04/2014

#### TEST REPORT

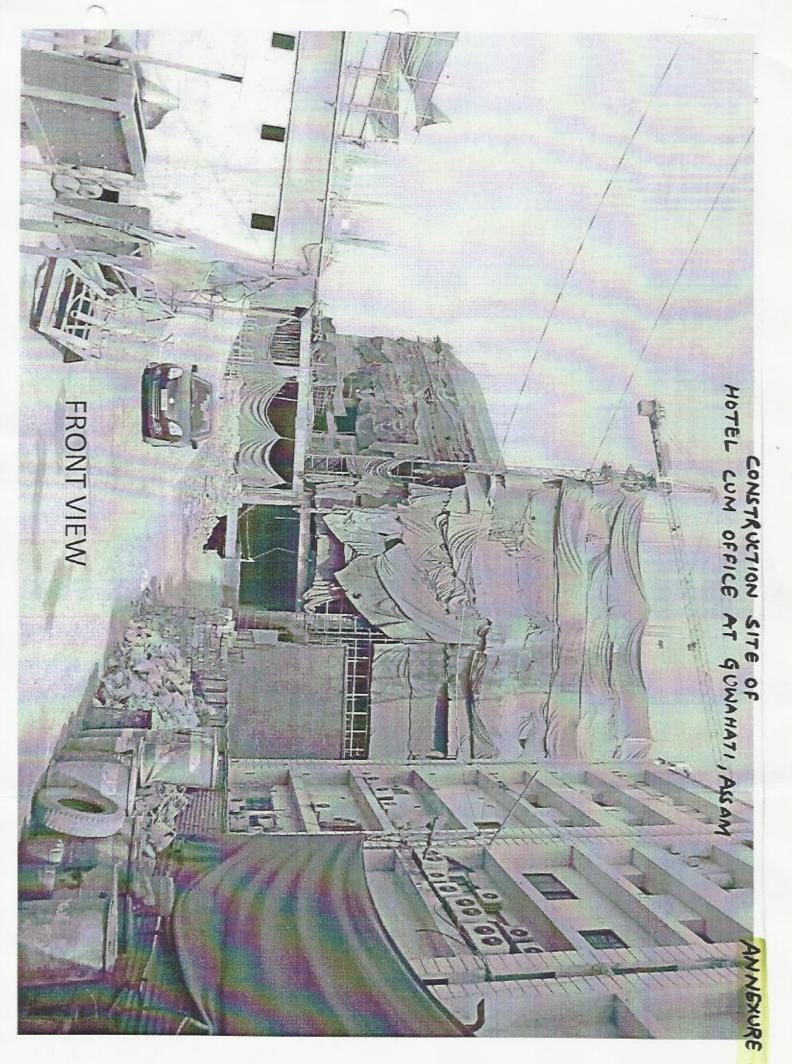
Name & Address of Client	En-vision Enviro Engineers Pvt. ltd.  208, G-Tower, Shankheshwar Complex, Sagrampura, Surat-395002, Gujarat			
Name of the project or Sample ID	M/S Maxim Infrastructure & Real Estate Pvt. Ltd., Opp. Secretariat Play Ground, G.S. Road, Dispur, Dist: Kamrup, Guwahati Assam. (Reference: 130781 14080032 0)			
Description of sample	Soil sample	collected from the project site		
Date of Sampling	22/03/2014	Date of receipt of Sample	22/03/2014	
Sample Collected by	En-vision Enviro Engineers Pvt. ltd. Team			

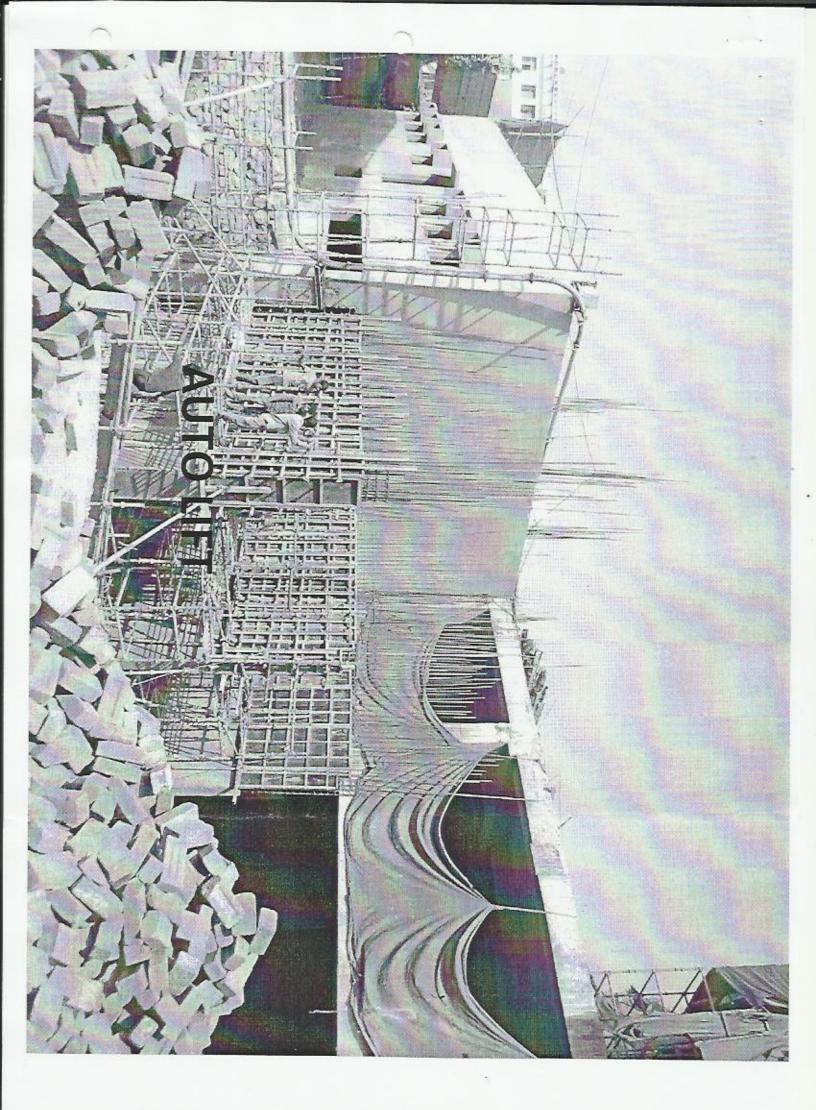
NO.	SOILPARAMETERS	UNIT	RESULT	REFERENCE METHOD	DETECTABLE LIMIT
1	pН		8.51	Potentiometric	0.01
2	Soil type		Loamy Sand	Hydrometer	
	Sand	%	69.78	Hydrometer	0.01
	Clay	%	9.42	Hydrometer	0.01
	Silt	%	20.80	Hydrometer	0.01
3	Nitrogen	Kg/ha	196.80	Alkaline KMHO <sub>4</sub>	0.05
4	Phosphorus	mg/kg	49.50	Olsen Method	0.05
5	Potassium	mg/kg	35.48	NH4-acetate Extraction	0.01
6	Electrical conductivity	mS/cm	1.82	Conductivity Meter	0.01
7	Water holding capacity	%	34.42	Standard method	0.01
8	Organic matter	%	0.15	Titrimetric	0.01
9	Salinity	mS/cm	1.82	Conductometric	0.01
10	Iron	mg/kg	50.73		0.0001
11	Copper	mg/kg	28.68		0.0001
12	Nickel	mg/kg	39.74	Atomic Absorption	0.0001
13	Manganese	mg/kg	92.51		0.0001
14	Zinc	mg/kg	153.40		0.0001
15	Sodium Absorption Ratio	mol/kg	0.34	Computation	0.01
16	Chlorides	mg/kg	134.9	Argentometric	0.1

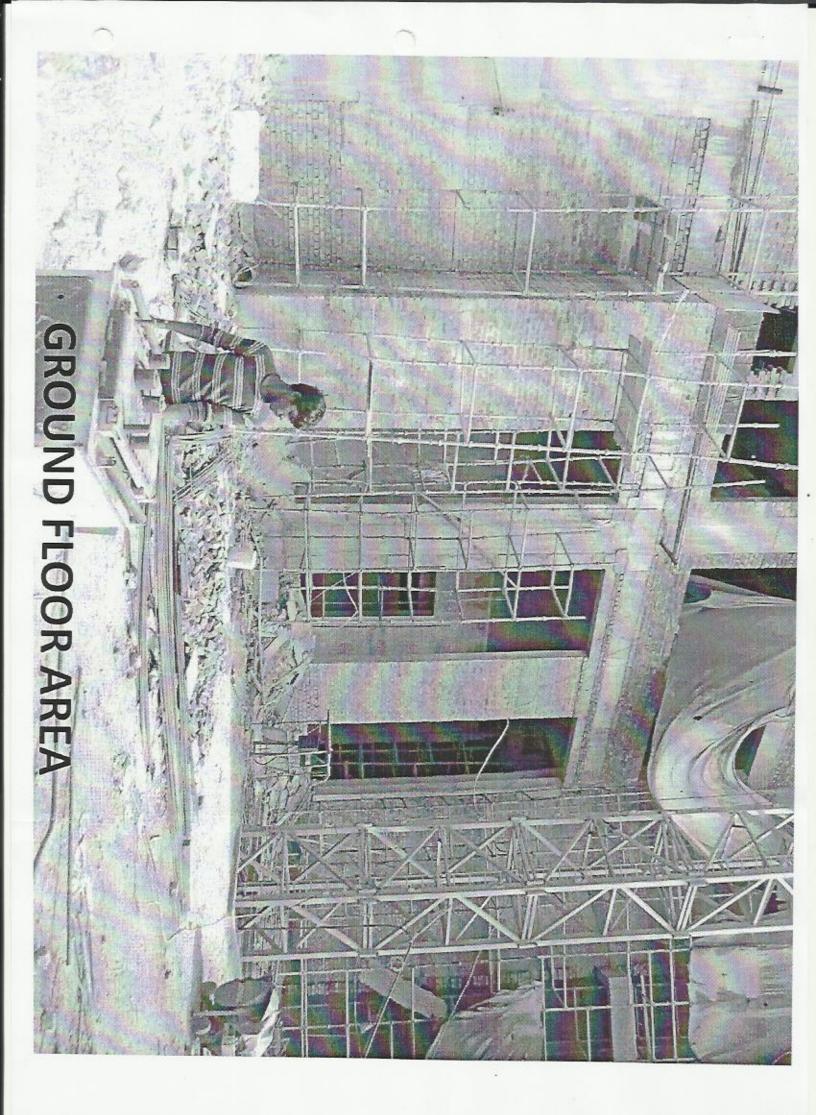
For EIA Project, Gauhati University

K G Bhattacharyya Coordinator 10/04/2014

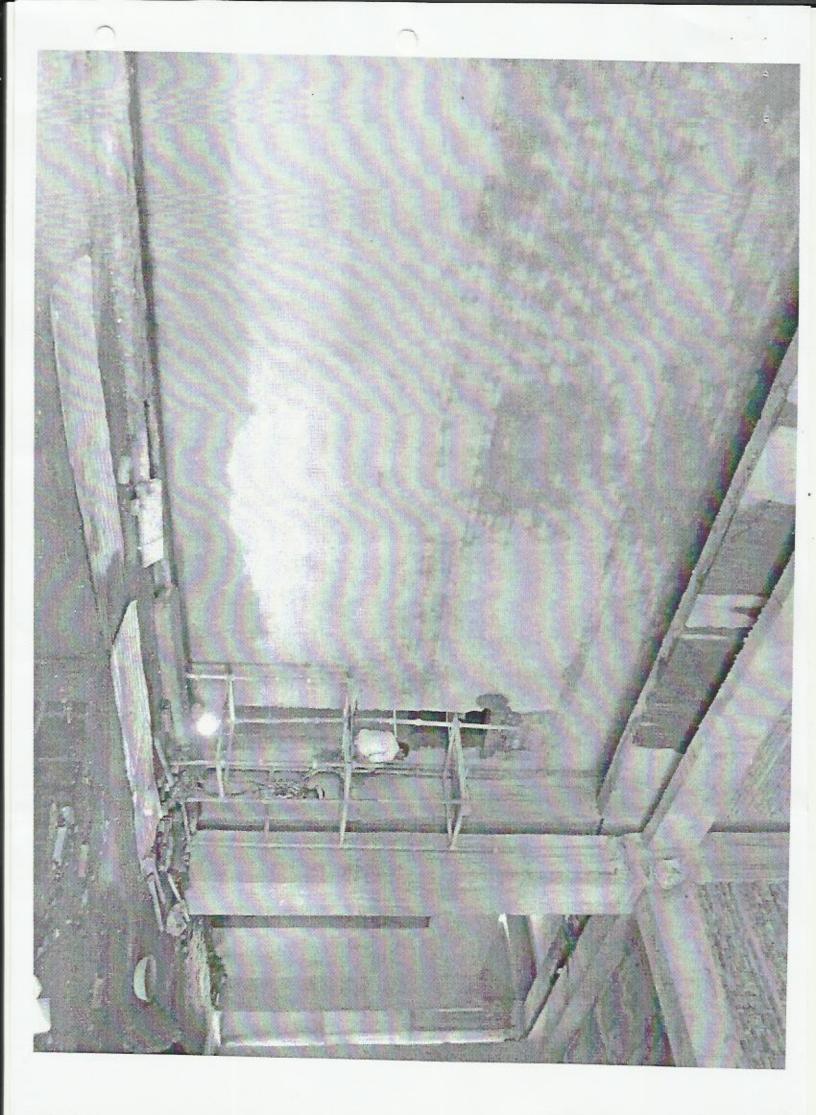
Gauhati University

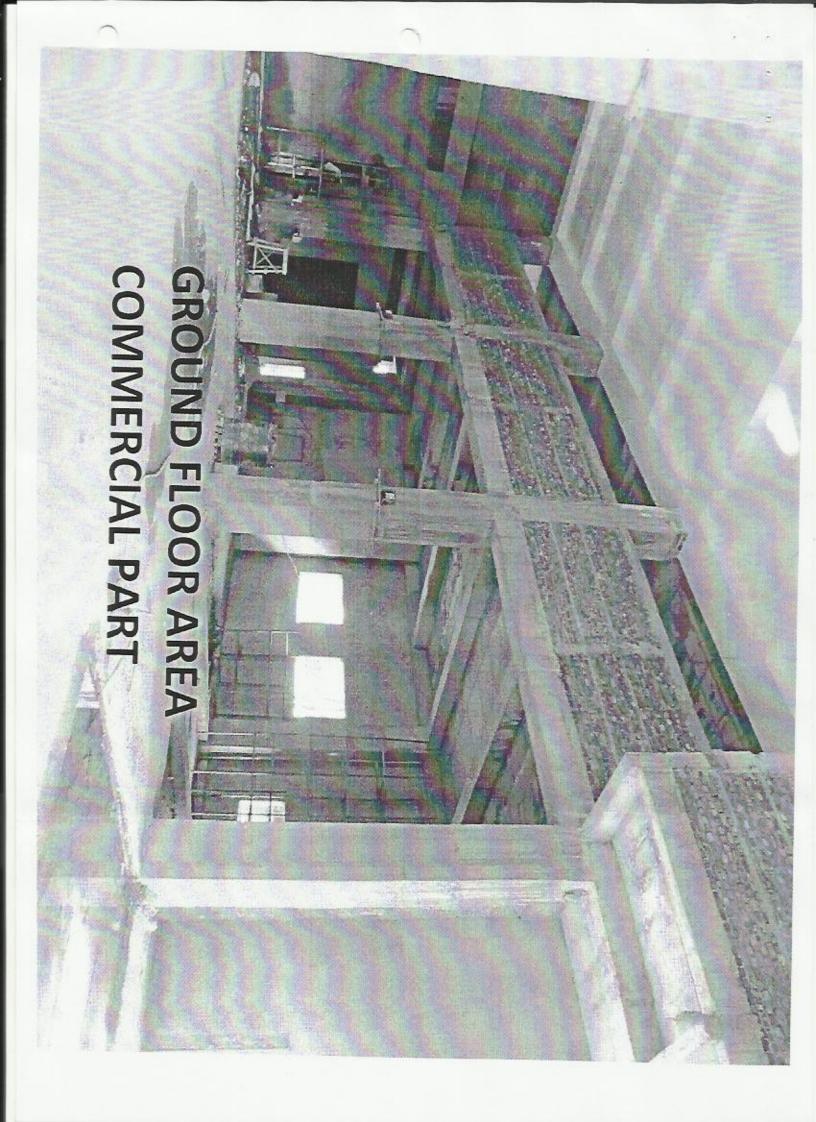












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HOTEL PART



