



MAXIM INFRASTRUCTURE & REAL ESTATE PVT. LTD.



Ref: MIREPL/119(B)//2280

Dated: 28th November, 2014

The Director
The Ministry of Environment & Forest
North Eastern Regional Office
Law-U-Sib, Lumbatngen
Near M.T.C. Workshop
Shillong 793021, Meghalaya

Subject

: <u>Submission of six monthly compliance report for Construction of Hotel-cum-Office-Complex at Guwahati, Assam for the period from April 14 to October 2014</u>

Dear Sir,

With reference to the above mentioned subject, we humbly submit herewith the following documents, in original:

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

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

Kindly acknowledge the receipt of the same.

Thanking you.

Yours faithfully,

FORMAXIM INFRASTRUCTURE & REAL ESTATE PVT. LTD.

Authorised Signatory

Enclosed as above

North Eastern Zonal Office, Shillong Receipt No.

C.C.: (i) The Scientist-E street Central Pollution Control Board Shillong, Zonal Office (Tum-Sir), Lower Motinagar, Near Fire Brigade HQ, Shillong 793014

(ii) The Member Secretary, O/O The Assam Pollution Control Board, Bamunimaidam, Guwahati 781021, Assam

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

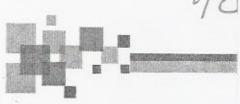
Phone: +91-361-2638215/2638261; Fax: +91-361-2543756 Website: www.imercup.net.in, e-stall: mail@hmercup.net.ii







MAXIM **INFRASTRUCTURE &** REAL ESTATE PVT. LTD.



Ref: MIREPL/119(B)/ /2280

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- 1. Compliance Report for the period from April 4, to October 4: As per Annexure A. along with
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Pollution Control

Assami Bamunimaidan

Guwahati-21

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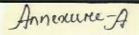
C.C.: (i) The Scientist-E & Incharge, Central Pollution Control Board Shillong, Zonal Office (Tum-Sir), Lower Motinagar, Near Fire Brigade HQ, Shillong 793014

(ii) The Member Secretary, O/O The Assam Pollution Control Board, Bamunimaidam, Guwahati 781021, Assam

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

Phone: +91-361-2638215/2638261. Fax: +9/





COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE FOR THE PERIOD OF APRIL-2014 TO SEPTEMBER-2014

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

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

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

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 vide 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.	Complied with, 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.	18000000		
(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.			
(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		

10.	CONDITIONS	COMPLIANCE STATUS		
		by leaching into the ground 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, and 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.	 Low sulphur diesel fuel is being used in the Diesel generator set. Air & noise monitoring were conducted within site to confirm parameters within standards norms. Monitoring reports are enclosed as Annexure-I. 		
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 operating DG sets is properating DG set				
(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 vehicles having Pollution check certificate is hired for the bringing construction materials and operated only during non-peak hours.		
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. ambient air qual monitored regulary enclosed as Annother construction phase, so as to conform to the stipulated standards by CPCB/ ASPCB.		 Ambient noise level and ambient air quality is being monitored regularly. Monitoring report is enclosed as Annexure-I. 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. 		
(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 th August, 2003.	Fly ash based cement are 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 already proposed and will			

NO.	CONDITIONS	COMPLIANCE STATUS
		constructed accordingly.
(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 application has been made to CGWA and the file is in process.
(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 will be done to control flow of showers, toilet flushing and drinking water fixtures. We are going for Leed Certification which enables us to adopt high standards in terms of water conservation and all types of resource conservation. That the final certificate will be issued after completion of project.
(xx)	Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.	High quality double glass with special reflective coating in 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 gas.
xxi)	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.	Roof of the building is being constructed as per recommended in a Report on the energy conservation measures already submitted. Insulation of roofs lab/ terrace with 2 mm. nitocote CM210;

NO.	CONDITIONS	COMPLIANCE STATUS
		4mm mineral finish polyester membrane proofex 4P; 50mm 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.	- Complied with The approval of 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.	

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.		
(ii)	The solid waste generated should be properly collected and	- Solid waste will properly	

NO.	CONDITIONS	COMPLIANCE STATUS			
	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.	collect and segregated through different colours dust bins. - 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)	of bio-degradable wast				
(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)					
(viii)	i) The ground water level and its quality should be monitored regularly in consultation with Central Ground Water monitored regularly. Authority.				
(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.	Security guard will be appointed to avoid traffic congestion near the entry and exit points. Around 9792.43 Sq.m. area for 180 no. of cars/vehicles			

NO.	CONDITIONS	COMPLIANCE STATUS
		parking spaces will be provided.
(x)	A Report on the energy conservation measures confirming 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.	Complied with. A report on the energy 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.	CFLs/TFLs for the lighting 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.
(xii)	AND THE PROPERTY OF THE PROPER	
(xiii)		
(xiv)	Water segregation shall be carried-out at source and organic shall be composted. Adequate space shall be provided within the complex.	 Water will be segregated through duel plumbing line. Organic waste will be composted within site and used as manure for the plantation.

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.	 Six month compliance report along with monitored data is being submitted regularly to monitoring agencies. 	
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	- We ensure to provide full cooperation, facilities and documents/data required by the Officials from the Regional Office of MOEF, Shillong during their	

NO.	CONDITIONS	COMPLIANCE STATUS		
	MOEF, Shillong.	inspection. - A complete set of all the documents submitted to 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			
7.	manner.			
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.		
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 http://www.envfor.nic.in . 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. Environmental of was published in local Newspapers circulated in the result of the North East The North E		- Public notice regarding Environmental clearance was published in the two local Newspapers widely circulated in the region i.e. The North East Times on dated 06/07/2011 and Janasadharan on dated		
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.				

NO.	CONDITIONS	COMPLIANCE STATUS
	received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Parisad/Municipal 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 ₂ , 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.	 Status of compliance of the 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 regularly sent to the Regional Office of MoEF at Shillong and the Assam Pollution Control Board. The latest report was submitted vide our letter bearing no. MIREPL/ 119(A)/ 1916, dated 28.05.2014.
13.	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of BC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Will be adhered to.

ANNEXURE –I MONITORING REPORTS

AMBIENT AIR ANALYSIS REPORT

Rep.No. 140908_14010007_01_ 260 /17

Date: 08/09/2014

Name & Address:

M/s. Maxim Infrastructure & Real Estate (P) Ltd., Opp. Secretariat Play Ground, G.S. Road, Dispur, Dist: Kamrup, Guwahati-781006, Assam.

SL.	DATE OF			PARAMETERS			
NO.	SAMPLING	LOCATION/ SOURCE	WEATHER	PM ₁₀ (μg/m³)	PM _{2.5} (μg/m³)	NO _x (µg/m³)	SO ₂ (μg/m³)
i)		Near G S Road (South-West Direction)		70	43	22.1	11.0
ii)	04/09/14	Near H T Tower (West Direction)	Clear	68	40	19.5	9.7
iii)		Near Deep Bore Well (North-East Direction)		64	37	17.2	8.1

Remarks: - All parameters are within the permissible limit.

NATIONAL AMBIENT AIR QUALITY STANDARDS:

SI.	1	Concentration in Ambient Air		
No.	Pollutant	Time Weighted Average	Industrial, Residential, Rural and Other Area	
1	Sulphur Dioxide (SO2) µg/m3	24 hours	80	
2	Nitrogen Dioxide (NO ₂), μg/m ³	24 hours	80	
3	Particulate Matter (PM ₁₀), µg/m ³	24 hours	100	
4	Particulate Matter (PM _{2.5}), µg/m ³	24 hours	60	

Envision Environmentologies North East, Guwahati

(Quality control Manager)

AMBIENT NOISE LEVEL MEASUREMENT REPORT

Rep.No. 140908_14010007_06A_ 261/j7

Date: 08/09/2014

Name & Address:

M/s. Maxim Infrastructure & Real Estate (P) Ltd., Opp. Secretariat Play Ground, G.S. Road, Dispur, Dist: Kamrup, Guwahati-781006, Assam.

SL. NO.	DATE OF SAMPLING	LOCATION /SOURCE	NOISE LEVEL in dB(A)Leq
i)		Near G S Road (south-west direction)	52.3
ii)	04/09/14	Near H T Tower (west direction)	48.1
iii)	01/05/14	Near Deep Bore Well (north-east direction)	50.7

Remarks: All noise level are carried out during day time.

Ambient Noise Standards:

Area Code	Category of area	Limits	in dB(A) Leq
		Day (6:00 am to 10:00 pm)	Night (10:00 pm to 6:00 am)
А	Industrial Area	75	70
В	Commercial Area	65	55
С	Residential Area	55	
D	Silence Zone		45
-	2	50	40

Envision Enviro Technologies North East, Guwahati.

Quality Control Manager

STACK ANALYSIS REPORT

Rep.No. 140908_14010007_02_ 262/17

Date: 08/09/2014

Name & Address:

M/s. Maxim Infrastructure & Real Estate (P) Ltd., Opp. Secretariat Play Ground, G.S. Road, Dispur, Dist: Kamrup, Guwahati-781006, Assam.

SL.	DATE OF	STACK DESCRIPTION	PARAMETERS	REMARKS
NO.	SAMPLING		Particulate Matter (g/kwhr)	-Data is within the
i)	04/09/14	Stack attached to DG set - 125 KVA	0.12	7

Emission Standards for Diesel Engine for generator set:

Engine Power(P)	Parameter	Standards
75KW <p≤800kw< td=""><td>Particulate Matter</td><td>0.2 g/kwhr</td></p≤800kw<>	Particulate Matter	0.2 g/kwhr

Envision Enviro Technologies North East, Guwahati

(Quality Control Manager)

D.G SET NOISE LEVEL MEASUREMENT REPORT

Rep.No. 140908_14010007_06A_ 263/14

Date: 08/09/2014

Name & Address:

M/s. Maxim Infrastructure & Real Estate (P) Ltd., Opp. Secretariat Play Ground, G.S. Road, Dispur, Dist: Kamrup, Guwahati-781006, Assam.

SL. NO.	DATE OF SAMPLING	LOCATION /SOURCE	NOISE LEVEL in dB(A)Leq
i)	04/09/14	125 KVA - DG Set	65.3

Remarks: Noise level is carried out during day time at a distance 1metre from the enclosure surface.

DG Set Noise Standards:

Noise limit viz. 75 dB(A) at 1m distance.

Envision Enviro Technologies North East, Guwahati.

(Quality Control Manager)



Telephone

Fax Email

EIA PROJECT, GAUHATIUNIVERSITY DEPARTMENT OF CHEMISTRY

Guwahati 781014, Assam (INDIA)

91 (0) 361 2570535 (Office) 9864031987(m) 91 (0) 361 2570599 kgbhattacharyya@gmail.com

Ref. Proj-ongoing/26/En-vision NE/MaxIm/2014/W/Oct 05 Date 30/10/2014

TEST REPORT

Your Reference (141010_14080032_0 Dt. 10/10/2014)

				Γ
Name &Address of Client	En-vision Enviro Te H/N – 7, 1st Floor, Opposite Assam St	En-vision Enviro Technologies North East. H/N – 7, 1 st Floor, BishnuRabha Path Opposite Assam State Zoo, Guwahati 781005, Assam		
Name of the project or Sample ID	M/S Maxim Infrastructure & Real Dist: Kamrup, Guwahati, Assam.	M/S Maxim Infrastructure & Real estate Pvt. Ltd., Opp. Secretariat Play Ground, G.S. Road, Dispur, Dist: Kamrup, Guwahati, Assam.	tariat Play Ground, G.S. Road, Dispur,	
Description of sample	Water	*		1
Date of Sampling	11-10-2014	Date of receipt of Sample	11-10-2014	
Sample Collected by	M/S En-vision Envi	M/S En-vision Enviro Technologies North East		

S/N PARAMETERS 1 pH 2 Turbidity, Max 3 TDS, Max 4 Total hardness, Max 5 Calcium, Max	-				Parts - In Company		
Turbidity, h TDS, Max Total hardr	ERS	LIND	RESULT	МЕТНОВ	DETECTION LIMIT	Acceptable limit	Permissible limit
Turbidity, N TDS, Max Total hardr Calcium. M		:	8.02	Potentiometric	0.01	6.5-8.5	No refaxation
TDS, Max Total hardr	Max	DEN	0.4		0.1	1.0	5.0
Total hardr		ma/l	164.3	-	0.1	200	2000
Calcium, M	Max Max	ma/L	160.5	EDTA Titrimetric	0.1	200	909
	, con	ma/l	28.6	EDTA Titrimetric	0.1	. 75	200
Magagainn	New o	1/0m	15.9	FDTA Titrimetric	0.1	30	100
Total Alkalinity, Max	inity. Max	ma/L	205.0	Titrimetric	0.1	200	009
Chloride, Max	Aax	ma/L	41.10	Argentometric	0.05	250	1000
Sulphate, Max	Max	ma/L	26.40	Turbidimetric	0.05	200	400

K.C.B. 30/10/2014

Departm ELAPI

L'ALLES

1	1	0.1	Dichromate Reflux	10.8	mg/L	COD
1	1	0.1	3 Day incubation at 27oC	7.1	mg/L	BOD
1	;	0.1	Azide modification	4.2	mg/L	Diss olved Oxygen
No relaxation	0.01	0.0001	Flame AAS	0.0018	mg/L	Selenium, Max
0.3	0.1	0.0001	Flame AAS	0.4824	mg/L	Manganese, Max
No relaxation	0.05	0.0001	Flame AAS	0.0063	mg/L	Chromium Iotal, Max
15	5	0.0001	Flame AAS	0.1885	mg/L	Zinc, Max
No relaxation	0.01	0.0001	Flame AAS	0.0025	mg/L	Lead, Max
No relaxation	0.003	0.0001	Flame AAS	0.0024	mg/L	Cadmium. Max
No relaxation	0.3	0.0001	Flame AAS	1.5650	mg/L	Iron (as Fe), Max
1.5	0.05	0.0001	Flame AAS	BDL	mg/L	Copper, Max
1.0	0.2	0.1	Iodometric	BOL	mg/L	Residual chlorine, Min
1.5	1.0	0.01	SPADNS Method	1.26	mg/L	Fluoride, Max
No relaxation	45	0.01	Spectrophotometric	0.75	mg/L	Nitrates, Max

All the measurement methods conform to IS 10500: 2012 and World Health Organization (WHO) Guidelines.

For EIA Project, Gauhati University,

KGRALLChowyn KG Bhattacharyya Coordinator 30/10/2014

EIA PROJECT, GAUHATI UNIVERSITY



DEPARTMENT OF CHEMISTRY

Guwahati 781014, Assam (INDIA)

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Professor K G Bhattacharyya, Ph.D.(London), DIC (Imperial College), Coordinator

Ref. Proj-ongoing/26/En-vision NE/Maxim/2014/Soil/Nov 16
Date 08/11/2014

TEST REPORT (141010_1408032_0 Dt. 10/10/2014)

Name & Address of Client	H/N - 7, 1st F	iro Technologies North East. Ioor, Bishnu Rabha Path am State Zoo, Guwahati 781005	, Assam
Name of the project or Sample ID	Op. Secretaria	nfrastructure & Real estate Pvt. at Play Ground, G.S Road, Dispu , Guwahati, Assam.	
Description of sample	Soil collected from project site		
Date of Sampling	11-10-2014	Date of receipt of Sample	11-10-2014
Sample Collected by	M/S En-vision	Enviro Technologies North East	

SN	PARAMETERS	UNIT	RESULT	METHOD	DETECTION LIMIT
1	pH		5.54	Potentiometric	0.01
2	Soil type		Loamy Sand	Hydrometer	/
24	Sand	%	79.39	Hydrometer	0.01
	Clay	%	6.62	Hydrometer	0.01
	Silt	%	13.99	Hydrometer	0.01
3	Nitrogen	kg/ha	282.24	Alkaline KMHO ₄	0.05
4	Phosphorus	mg/kg	56.00	Olsen Method	0.05
5	Potassium	mg/kg	59.50	NH4-acetate Extraction	0.01
6	EC	mS/cm	1.46	Conductivity Meter	0.01
7	WHC	%	41.9	Standard method	0.01
8	SOM	%	1.42	Titrimetric	0.01
9	Salinity	mS/cm	1.46	Conductometric	0.01
10	Iron	g/kg	20.57	Flame AAS	0.0001
11	Copper	mg/kg	27.70	Flame AAS	0.0001
12	Nickel	mg/kg	44.20	Flame AAS	0.0001
13	Manganese	mg/kg	493.80	Flame AAS	0.0001
14	Zinc	mg/kg	54.10	Flame AAS	0.0001
15	SAR	mol/kg	0.18	Computation	0.01
16	Chlorides	mg/kg	170.4	Argentometric	0.1

SAR Sodium Absorption ratio; WHC Water holding Capacity; SOM Soil Organic matter; EC Electrical Conductivity (both pH and EC for 1:5 soil-water suspension)

Maxim-Assam/Soil

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