




SIX-MONTHLY COMPLIANCE REPORT
OF
LOWER KOPILI HYDRO ELECTRIC PROJECT (120 MW), ASSAM
TO
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

SUBMITTED BY
ASSAM POWER GENERATION CORPORATION LIMITED





DECEMBER, 2021


Compliance of stipulated conditions of Environmental Clearance

Sl. No.	Standard conditions of Environmental Clearance	Status Compliance
I. Statutory compliance:		
i	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.	<ul style="list-style-type: none"> • Stage-I Forest Clearance accorded by MoEF & CC, New Delhi on 5th February, 2019. • Stage-II Forest Clearance accorded by MoEF & CC, New Delhi on 04th December, 2020. Annexure -1
ii	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable.
iii	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden, if applicable. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six- monthly compliance report, (in case of the presence of Schedule-I species in the study area).	Site Specific Conservation Plan and Wildlife Management Plan submitted to Chief Wildlife Warden, Assam on 25.6. 19. Annexure -2
iv	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.	Agreed. Package 2 Contractor has obtained the CTE for Crusher, 4 nos DG set and Batching Plant in the month of November 2021. Applied for CTO for the above plants Copy of CTE enclosed. (Annexure -3 CTE for Batching Plant Annexure -4 CTE for Crusher and 4 DG sets).
v	NOC shall be obtained from National Commission of Seismic Design Parameters (NCSDS) of CWC.	Obtained and already submitted.
vi	Necessary approval of CEA shall be obtained for those projects having the project cost more than Rs. 1,000 crore.	Obtained and already submitted.
II. Air quality monitoring and preservation		
i	Regular monitoring of various environmental parameters viz., Water Quality, Ambient Air Quality and Noise levels as per the CPCB guidelines at designated locations shall be carried out on monthly basis and a detailed database of the same shall be prepared and recorded. This shall be used as a baseline data for post construction EIA / Monitoring purposes.	Regular monitoring done at project site (Environmental Monitoring Reports are enclosed in Annexure-5. The monitoring were carried out by MoEF &CC recognized Lab)

ii	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed standards.	Regular monitoring done at project site. Adequate spraying of water in roads and dust control measures has already been installed in respective dust generation site.
iii	Necessary control measures such as water sprinkling arrangements, etc. bet taken up to arrest fugitive dust at all the construction sites.	Regular monitoring done at project site and water sprinkling done.
III. Water quality monitoring and preservation		
i	Before impounding of the water, Cofferdams for both at the upstream and downstream are to be decommissioned as per EIA/EMP report so that once the project is commissioned; cofferdam should not create any adverse impact on water environment including the rock mass and muck used for the Cofferdam.	Agreed.
ii	Water depth sensors shall be installed at suitable locations to monitor e-flow. Hourly data to be collected and converted to discharge data. The Gauge and Discharge data in the form of Excel Sheet is submitted to the Regional Office, MoEF & CC and to the CWC on weekly basis.	Regular recording of discharge data are taken of Kopili river.
IV. Noise monitoring and prevention		
i	All the equipment likely to generate high noise shall be appropriately enclosed or inbuilt noise enclosures be provided so as to meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000, as amended in 2010 under the Environment Protection Act (EPA), 1986.	Agreed. All the DG sets are with acoustic enclosures. 
ii	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.	Monitoring reports are enclosed in Annexure 5 and complied the Ambient Noise level standards.
V. Catchment Area Treatment Plan		
i	Catchment Area Treatment (CAT) Plan as proposed in the EIA/EMP report shall be implemented in consultation with the State Forest Department and shall be implemented in synchronization with the construction of the project.	An Amount of Rs. 28, 29, 67,000.00 (Rupees Twenty Eight Crore Twenty Nine Lakh Sixty Seven Thousand) only already paid to Forest Department for implementation of Catchment Area Treatment Plan (CATP). APGCL is pursuing with Forest Department for implementation.

VI.	Waste management	
i	Muck disposal be carried out only in the approved and earmarked sites. The dumping sites shall be located sufficiently away from the HFL of the river. Efforts be made to reuse the muck for construction and other filling purposes and balanced be disposed of at the designated disposal sites. Once the muck disposal sites are inactive, proper treatment measures like both engineering and biological measures be carried out so that sites are stabilized quickly.	At present dumping of excavated earth in 4 locations in Revenue land are going on. Once the muck disposal sites are inactive, proper treatment measures like both engineering and biological measures be carried out so that sites are stabilized quickly.
ii	Solid waste management should be planned in details. Land filling of plastic waste shall be avoided and instead be used for various purposes as envisaged in the EIA/EMP reports. Efforts be made to avoid one time use of plastics.	Agreed and SWM plan is under preparation. At present segregation if going on at source and composting process is undertaken at site.
VII. Green Belt, EMP Cost, Fisheries and Wildlife Management		
i	Detailed information on species composition particular to fish species from previous study/literature be inventoried and proper management plan shall be prepared for in situ conservation in the streams, tributaries of river and the main river itself for which adequate budget provision be made and followed strictly.	Agreed. Downstream river ecology study will be conducted shortly to update the baseline information and plan will be updated accordingly.
ii	Wildlife Conservation Plan prepared for both core and buffer zones shall be implemented in consultation with the local State Forest Department, if applicable.	Wildlife Conservation plan has already been submitted to Forest Department for implementation. Annexure 2.
iii	To enrich the habitat of the project site, plantation shall be raised as envisaged in the EIA/EMP report. Plantation to be developed along the periphery of the reservoir in multi-layers with local indigenous species in consultation with the local State Forest Department.	Agreed. Plantation already initiated.
iv	Compensatory Afforestation programme shall be implemented as per the plan approved.	Agreed. An amount of Rs. 15, 94, 23,850.00 (Rupees Fifteen Crore Ninety Four Lakh Twenty Three Thousand Eight Hundred Fifty) only already paid to Forest Department for Compensatory Afforestation (CA) in CAMPA head. The 8 patches of Revenue land has already been notified as Reserved Forest by Govt. of Assam.
v	Fish ladder/pass as envisaged in the EIA/EMP report shall be maintained for migration of fishes. Regular monitoring of this facility be carried out to ensure its effectiveness	As the river water is acidic in nature, during the EIA study no fish ladder / pass was proposed. Hence Fish ladder/pass is not considered not this project.
VIII. Public hearing and Human health issues		
i	Resettlement & Rehabilitation plan be implemented in consultation with the State Govt. as approved by the State Govt., if any.	Agreed. Implementation is going on.

ii	Budget provisions made for the community and social development plan including community welfare schemes shall be implemented in to.	Agreed. Will be implemented as per plan.
iii	Preventive measures viz. fuming and spraying of mosquito control shall be done in and around the labour colonies, affected villages, stagnated pools, etc. Provisions be made to not to create any stagnated pools to avoid creation of breeding grounds of the vector borne diseases.	Agreed. Package 2 contractor has already taken up appropriate measures to control mosquitos.
iv	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.	<p>Agreed. Package 2 contractor has already constructed labour camps with he following facilities like - common kitchen, Sanitary and mobile toilets, safe drinking water, medical health care, etc.</p>  <p>Camp</p>  <p>Staff Canteen</p>  <p>Staff Canteen</p>  <p>Toilets</p>
v	Labour force to be engaged for construction works shall be examined thoroughly and adequately treated before issuing them work permit. Medical facilities shall be provided at the construction sites.	Medical facility (First Aid Center) provided by the contractor at site.

		 <p>First Aid Center</p>
vi	Early Warning Telemetric system shall be installed in the upper catchment area of the project for advance intimation of flood forecast.	At present Early warning is given by district administration Disaster Management Cell and discharge data is shared by NEEPCO project authority located upstream. Project specific Early Warning Telemetric system will be installed as soon as the JFPR grant is disbursed.
vii	Emergency preparedness plan be made for any eventuality of the dam failure and shall be implemented as per the Dam Break Analysis	Agreed.
IX. Corporate Environment Responsibility		
i	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.	Agreed.
ii	Skill mapping be undertaken for the youths of the affected project area and based on the skill mapping, necessary trainings to the youths be provided for their long time livelihood generation	Agreed. NGO has been recruited for various activities including skill mapping.
iii	The PP 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 environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	Agreed.
iv	A 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 the head of the organization.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel are in place.

v	Action plan for implementing EMP and environmental 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 environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.	Agreed and initiated.
vi	Post EIA and SIA be prepared for the project through a third party and evaluation report be submitted to the Ministry after five years of commissioning of the project.	Agreed. Will be carried out after completion of 5 years.
vii	Multi-Disciplinary Committee (MDC) be constituted with experts from Ecology, Forestry, Wildlife, Sociology, Soil Conservation, Fisheries, NGO, etc. to oversee implementation of various environmental safeguards proposed in EIA/EMP report during construction of the project. The monitoring report of the Committee shall be uploaded in the website of the Company.	Agreed and initiated for nomination of the experts from respective departments from Ecology, Forestry, Wildlife, Sociology, Soil Conservation, Fisheries, NGO, etc..
X. Miscellaneous		
i	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by 5 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.	Already done. Annexure -6
ii	The copies of the environmental clearance shall be submitted by the project proponents to the 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.	Already done.
iii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Agreed.
iv	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 environment clearance portal.	Agreed and submitted every six months.
v	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.	Agreed.

vi	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Agreed.
vii	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Agreed.
viii	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Agreed.
ix	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Agreed.
x	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Agreed.
xi	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed.
xii	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Agreed.
xiii	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.	Agreed.
xiv	The above conditions shall be enforced, inter-alia under the provisions of the Water (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.	Agreed.
xv	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.	Agreed.

File No.8-53/2018FC

Government of India
Ministry of Environment, Forest and Climate Change
(F.C. Division)

Indira Paryavaran Bhawan,
JorBagh Road, Aliganj,
New Delhi: 110003,

Dated: 04 December, 2020

To,

The Addl. Secretary (Forests),
Government of Assam,
Environment and Forest Department,
Dispur, Guwahati-6.

Sub: Diversion of 523.046 ha of forest land for construction of Lower Kopili Hydro Electric Project by Assam Power Generation Corporation under Dima Hasao West Division, Halflong and Hamren Division, Assam.

Sir,

I am directed to refer to the Govt. of Assam's letter No. FRS/2018/222 dated 30.07.2018 on the subject mentioned above seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980 and to say that the proposal has been examined by the Forest Advisory Committee constituted by the Central Government under Section-3 of the aforesaid Act. After careful consideration of the proposal by the Forest Advisory Committee (FAC) and after its recommendation, and approval of competent authority in the Ministry, *In-principle/Stage-I* approval was accorded vide this Ministry's letter of even number dated 05.02.2019 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the approval and has requested the Central Government to grant final approval.

2. In this connection, I am directed to say that on the basis of the compliance report furnished by the Government of Assam's letters letter No. FRS.152/2018/346 dated 11.09.2020 and No. FRS.152/2018/414 dated 16.10.2020, and clarification on FRA by Ministry of Tribal Affairs letter No.23011/20/2020-FRA dated 30.10.2020, *approval* of the Central Government is hereby accorded under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 523.046 ha of forest land for construction of Lower Kopili Hydro Electric Project by Assam Power Generation Corporation under Dima Hasao West Division, Halflong and Hamren Division, Assam subject to the following conditions:

A: Conditions which need to be complied prior to handing over of forest land :

- i. The Government of Assam, Environment and Forest Department shall issue final notification for the proposed Compensatory Afforestation (CA) area as Reserved Forest/Protected Forest prior to handing over the land to the user agency. The State Government shall ensure that the CA area in the final notification shall not be changed without prior approval of the Government of India and shall not be less than 525.27 ha as proposed in the notification nos. FRS152/2018/354, FRS152/2018/353, FRS152/2018/352, FRS152/2018/351, FRS152/2018/350, FRS152/2018/349, FRS152/2018/348 and FRS152/2018/347 dated 11.9.2020 of the Government of Assam.
- ii. The State Government shall ensure that the User Agency will implement the R&R Plan as per the R&R Policy of the State Government in consonance with the National R&R Policy, Government of India before the commencement of the project work. The said R&R Plan will be monitored by the State Government/concern Regional Office of MoEF&CC along with

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- indicators for monitoring and expected observable milestones;
- iii. The State Govt. shall ensure the complete compliance on FRA, 2006.
 - iv. The State Govt. ensure that the User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;

B: Conditions which need to be complied after handing over of forest land to the user agency :

- i. Legal status of the diverted forest land shall remain unchanged;
- ii. The State Govt. shall ensure that the State Forest Department will raise the Compensatory Afforestation in identified non -forest land in lieu of 523.046 Ha. of forest land, within three years from the issue of approval and maintained thereafter, from the funds deposited by the User Agency. At least 1000 plants per hectare shall be planted as per approved plan/scheme and maintained thereafter subsequently for ten years. The approved Soil and Moisture Conservation (SMC) activities on the CA land shall be carried out by the State Forest Department;
- iii. The State Govt. shall ensure that 198.746 ha out of proposed diversion of 523.046 ha of forest land shall be maintained as Green Belt at the cost of user agency under the supervision of State Forest Department;
- iv. The User Agency shall pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India;
- v. The State Govt. shall ensure that the approved Catchment Area Treatment (CAT) Plan shall be implemented by the State Forest Department from the funds deposited in the account of CAMPA;
- vi. The State Govt. and the User Agency shall ensure that no residential or labour colony/camp shall be constructed over forest land. The User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;
- vii. The State Govt. ensure that the User Agency shall carry out muck disposal at pre-designated sites in such a manner so as to avoid its rolling down and the dumping area for muck disposal shall be stabilized and reclaimed by planting suitable species by the user agency at the cost of project under the supervision of State Forest Department. Retaining walls and terracing shall be carried out to hold the dumping material in place. Stabilization and reclamation of such dumping sites shall be completed before handing over the same to the State Forest Department in a time bound manner as per Plan.
- viii. The State Government and the User Agency shall ensure that the tress available between full reservoir level (FRL) and FRL-4 meters are not felled and the User Agency shall carry out afforestation along the periphery of the reservoir;
- ix. The State Govt. and the User Agency shall ensure that period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under;
- x. The State Govt. shall ensure that the forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government and the layout plan of the proposal shall not be changed without the prior approval of the Central Government;
- xi. The State Govt. shall ensure that no damage to the flora and fauna of the adjoining area shall be caused;
- xii. The State Govt. shall ensure that the User Agency shall explore the possibility of translocation

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of maximum number of trees identified to be felled and any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department;

- xiii. The State Govt. shall ensure that the User Agency shall provide free water for the forestry related projects;
- xiv. It may please note that violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019;
- xv. The State Govt. shall ensure that the User Agency shall submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly; and
- xvi. The State Govt. shall ensure that the User Agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.

Yours faithfully,

Sd/-

(Sandeep Sharma)

Assistant Inspector General of Forests (FC)

Copy to:

1. PCCF (HoFF), Government of Assam, Guwahati.
2. Nodal Officer (FCA), Office of the PCCF (HoFF) Government of Assam, Guwahati.
3. Dy. Director General (Central), Integrated Regional Office, Shillong.
4. User Agency.
5. Monitoring Cell of FC Division, MoEF&CC, New Delhi.
6. Guard file.



ASSAM POWER GENERATION CORPORATION LIMITED

Registered Office: Bijulee Bhawan, 2nd floor, Paltan-bazar, Guwahati-781 001, Assam

Mr. Ratnajit Biswanath
Chief General Manager (Hydro & Civil)
Phone-0361-2739522
E-mail: cgmh2010@yahoo.in

Dated: 25/06/2019

No: APGCL/CGM (H)/W/2015/569/Vol-II/04

To,

The PCCF (WL) cum Chief Wildlife Warden,
Govt. of Assam,
Aranya Bhawan,
Panjabari, Guwahati-37

Sub: Approval for Conservation Plan for Lower Kopili Hydro Electric Project, 120MW.

Madam,

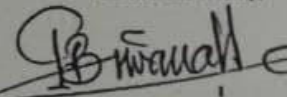
It is for your kind information that, Assam Power Generation Corporation Limited is proposed to install 120 MW hydro electric Project at Kopili river Basin at Longku of Dima Hasao District and Karbi Anglong District.

In this context APGCL has received Stage-I forest clearance from MoEF & CC for diversion of 523.046 Ha of forest land. As advised by Forest Advisory Committee (FAC), MoEF, APGCL has kept 198.746 Ha forest as green belt. For necessary fees for NPV, CA, S&M conservation plan, CAT Plans, ETC has been approved by the respective divisions of forest department for payment in CAMPA account. Accordingly APGCL has initiated necessary actions for release of the aforesaid payment at an early date ahead.

The conservation plan for biodiversity (Flora and Fauna) is enclosed herewith for your kind approval and necessary action.

Thanking You,

Yours faithfully,


25/6/19
Chief General Manager (H&C)
APGCL

Copy to-

- 1) The Managing Director, APGCL, Bijulee Bhawan, Paltanbazar, Guwahati-1, for kind information.
- 2) The Project Director, Lower Kopili H.E. Project, APGCL, Bijulee Bhawan, Paltanbazar, Guwahati -1 for Information.
- 3) Relevant File.

Received
on
25.6.19
D



Annexure 3 CTE for Batching Plant



**Pollution Control Board:: Assam
Bamunimaidam; Guwahati-21**
(Department of Environment & Forests :: Government of Assam)
Phone: 0361-2652774 & 2550258; Fax: 0361-2550258
Website: www.pcbassam.org



No. WB/SLC/T-1191/21-22/7-1676
Online application No. 590529

Dated Guwahati, the 11/11/2021

"CONSENT TO ESTABLISH"

"CONSENT TO ESTABLISH" is hereby granted under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 as amended and Rules Framed thereunder to:

- i) Name of Industry- M/S. Larsen & Toubro Ltd, batching Plant.
- ii) Name of the Occupier / Applicant and Designation- Mr. Santanu Majumder (Project Manager).
- iii) Address- Lower Kopili Hydro Electric project, Vill; Longku, P.O : Umrangso, Dist Dima Hasao (Assam).
- iv) Validity of CTE- till the date of commissioning of the unit or 7 (seven) years whichever is earlier
- v) Details of Products to be Manufactured: Batching Plant Unit of capacity 5200 MT/Month.

This CTE is valid as per specific information and documents provided by the occupier as well as site inspection and preliminary assessment by the Board and same is granted subject to the General and specific conditions stipulated below:-

1. No Air, Water, Soil pollution shall be created by the industry beyond the permissible limits prescribed by the Board. The industry would incorporate adequate pollution control measures before they put the plant into operation.
2. To regularize the subsequent process, the legal provisions of "Consent to Operate" as per Act shall have to be timely adhered to.
3. The solid waste generated from the unit shall be disposed in a scientific way as per Solid Waste Management Rules, 2016.
4. Environmental Statement in prescribed form V should be submitted on or before the 30th September every year.
5. Fire warning (Alarm, Siren) is to be installed by the unit to guard against accidental pollution/ mishap together with fire fighting devices.
6. Proper housekeeping and adequate maintenance has to be ensured/ enforced as per provisions of Acts.
7. Healthy working environment for the worker must be maintained and there should not be health Hazard to the workers for inadequate arrangement for ventilation, dust removal to arrangements should be adequate and full proof for the health of the workers. Their health should be regularly monitored.
8. The Plastic waste generated from the unit shall be disposed in a scientific way as per Plastic Waste Management Rules, 2016.
9. Healthy working environment for the worker must be maintained and there should not be health Hazard to the workers for inadequate arrangement for ventilation, dust removal to arrangements should be adequate and full proof for the health of the workers. Their health should be regularly monitored.
10. The project proponent shall develop a greenbelt / Plantation area with native trees only at at-least 33% of total plot area.
11. The industry is to provide dust extraction arrangement at all transfer points

S. Deka



12. The industry should install water sprinkler system to suppress the dust which may arise due to plying of vehicles etc.
13. Necessary steps are to be made to bring the noise within the prescribed limit, as stipulated below, as per GSR 7, dated Dec.22, 1998.

Limit in dB(A) Leq.	
Day time	Night time
75	70

14. The unit shall apply for Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 within 30 days from the date of issue of this order.
15. The industry must comply to the National Ambient Air Quality Standards as per Schedule – VII under Rule, 3 (3B) of the Environment (Protection) Rules, 1986, especially with respect to PM_{2.5}, PM₁₀, SO₂ & NO₂ as follows:

Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air	
			Industrial, Residential, Rural & Other Area	Ecologically Sensitive Area (notified by Central Government)
1.	Particulate Matter (size less than 10µg) or PM10 µg/m ³	Annual* 24 hours**	60 100	60 100
2.	Particulate Matter (size less than 2.5µg) or PM2.5 µg/m ³	Annual* 24 hours**	40 60	40 60
3.	Sulphur Dioxide (SO ₂), µg/m ³	Annual* 24 hours**	50 80	20 80
4.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	30 80

16. The unit shall submit compliance report of the mandated conditions by April, 15, every year to Member Secretary, PCBA as well as to concerned Regional Office, PCBA.
17. This "CONSENT TO ESTABLISH" is subject to imposition of any other condition, if warranted by the subsequent development. This issuance of the CTE does not i) convey any property right in their real or personal property or any exclusive privileges, ii) nor does it authorize any injury to private property nor any invasion right/ any infringement of Central, State or Local Laws or Regulations. iii) The CTE does not authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any natural watercourse except of the works specially instructed herein.

The Board will be at liberty to withdraw the CTE at any time without notice, if necessary steps for prevention & control of pollution and prevention of environment is not taken by the industry as per mentioned conditions.

S.M.K.
(Dr. Shantanu Kr. Dutta)
Member Secretary

Dated Guwahati, the 11/11 2021

Memo No. WB/SLC/T-1191/21-22/7-A, *1076*
Copy to:

1. M/s. Larsen & Toubro Ltd, batching Plant, Lower Kopili Hydro Electric project, Vill; Longku, P.O.: Umrangso, Dist Dima Hasao (Assam) for information & necessary action.
2. The Regional Executive Engineer, RLO, Silcahr; Pollution Control Board, Assam for information & necessary action.

S.M.K.
(Dr. Shantanu Kr. Dutta)
Member Secretary



Pollution Control Board:: Assam
Bamunimaidam; Guwahati-21
(Department of Environment & Forests :: Government of Assam)
Phone: 0361-2652774 & 2550258; Fax: 0361-2550259
Website: www.pcbassam.org



No. WB/SLC/T-1184/21-22/06
1065

Dated Guwahati the, 22/10/ 2021

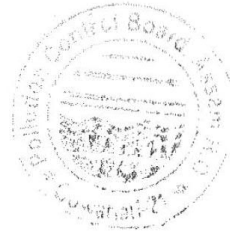
“CONSENT TO ESTABLISH”

“CONSENT TO ESTABLISH” is hereby granted to **M/S LARSEN & TOUBRO LTD.** for setting up a **Stone Crusher unit** with production capacity of Stone Aggregate – 33378 MT/Month; By Product : Quarry Wastage – 5006 MT/Month & Micro Fines – 3337 MT/Month alongwith 4 Nos. of DG Set of capacity – 125KVA, 250KVA, 180KVA & 40KVA to be located at Vill.: Longku, P.O.: Umrangso, Dist.: Dima Hasao, Pin-788931, (Assam) under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 as amended under the following terms & conditions:

1. No Air, Water, Soil pollution shall be created by the industry beyond the permissible limits prescribed by the Board. The industry would incorporate adequate pollution control measures before they put the plant into operation.
2. To maintain the environment and ecology in the area provisions for planting selected species of tree within the compound and approaches along with provisions for park, garden and Fountain shall have to be made. Massive afforestation will have to be made by the industry in the factory and township if any.
3. As per provisions of water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 any officer, employed by this Board in its behalf shall have without any interruption, the right at any time to enter the industry for inspection, to take samples for analysis and may call for any information etc. Violation of this right will lead to withdrawal of this permission.
4. As per provisions of the Act, regular quarterly monitoring are to be done by the industry from the location/points fixed by the Board and the report to be submitted to the board quarterly.
5. To regularize the subsequent process, the legal provisions of “Consent to Operate” as per Act shall have to timely adhered to.
6. Gaseous pollution due to the burning of fuel to run engine, boiler, etc. should be controlled by adopting preventive measures adequately.
7. Solid waste that arises during the operation should be properly segregated and disposed of scientifically without causing nuisances.
8. Fire warning (Alarm, Siren) is to be installed by the unit to guard against accidental pollution/ mishap together with fire fighting devices.
9. All pipe connection, Joints, fittings etc. in the factory and plant are to be frequently checked and shall be leak proof all the time
10. Proper housekeeping and adequate maintenance has to be ensured/ enforced as per provisions of Acts.

Contd.....p/2

Smt
22/10



11. All unwanted Toxic Chemical/Fluid/Gases are to be neutralized before releasing to the ambient air / flaring up as required.
12. Production process is to be monitored and in the event of danger immediate shut down is to be ensured by the industry.
13. **“CONSENT TO ESTABLISH”** has been issued basing on the particulars furnished by the applicant and subject to imposition to further/more conditions if warranted by the subsequent development.
14. Healthy working environment for the worker must be maintained and there should not be health Hazard to the workers for inadequate arrangement for ventilation, dust removal to arrangements should be adequate and full proof for the health of the workers. Their health should be regularly monitored.
15. The unit must submit compliance report of action taken on the conditions given by the Board before commissioning of the plant.
16. **“CONSENT TO ESTABLISH” will be valid till the date of commissioning of the unit or 7 (seven) years whichever is earlier.**
17. This issuance of the **“CONSENT TO ESTABLISH”** does not convey any property right in their real or personal property or any exclusive privileges nor does it authorize any injury to private property nor any invasion right any infringement of Central, State or Local Laws or Regulations.
18. The **“CONSENT TO ESTABLISH”** does not authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any natural watercourse except of the works specially instructed herein.
19. All steps are to be taken by the industry to control the dust so that it does not go outside the factory.
20. The industry is to fully enclose the screening machine with dust extraction from close to unit.
21. The industry is to provide dust extraction arrangement at all transfer points.
22. The industry is to make water-spraying arrangement for the finer product.
23. The industry will always keep it wet the finer product.
24. Necessary steps are to be made to minimize noise.
25. The industry must comply to the National Ambient Air Quality Standards as per Schedule – VII under Rule, 3 (3B) of the Environment (Protection) Rules, 1986.

Contd.....p/3

APPENDIX – A



1.66.0 STANDARDS AND GUIDELINES FOR CONTROL OF NOISE POLLUTION FROM STATIONARY DIESEL GENERATOR (DG) SETS.

(A) Notes standards for DG sets (15-500KVA)

The total sound power level LW of DG set should loss than $94 + 10 \log 10\text{KVA}$, dB (A), at the manufacturing stage, whether; KVA is the nominal power rating of a DG set.

This level should fall by 5dB (A) every five years, till 2007, i.e. in 2002 and then in 2007.

(B) Mandatory Acoustic enclosure/Acoustic treatment of room for stationary DG sets (5KVA and above):

Noise from the DG set should be controlled by providing an acoustic enclosure on by treating the room acoustically.

The acoustic enclosure/acoustic treatment of the room should be designed for minimum 25 dB (A) insertion Loss or for meeting the ambient noise standards, which ever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/acoustic treatment. Under circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion Loss may be done at different points at 0.5 from the acoustic enclosure/room, and then averaged. (See the Schematic Diagram).

The DG set should also be provided with proper exhaust muffler with Insertion Loss of minimum 25 dB (A).

Guidelines for the manufacturers Users of DG sets 5KVA and above:

- The manufacture should offer to the user a standard acoustic enclosure of 25dB(A). Insertion Loss and also a suitable exhaust muffler with Insertion Loss of 25dB(A).
- The user should make efforts to bring down the noise levels due to the DG set, outside his premises, within the ambient noise requirements by proper siting and control measures.
- The manufacturer should furnish noise power levels of the unsalaried DG sets as per standards prescribed under (A).
- The total sound power level of a DG set, at the user's and, shall be within 2dB(A) of the total sound power level of the DG set, at the manufacturing stage, as prescribed under (A).
- Installation of DG set must be strictly in compliance with the recommendation of the DG set manufacture.
- A proper routines and preventive maintenance procedure for the DG set manufacturer which would help prevent noise levels of the DG set from deteriorating with use.

2.44.0 NOISE (AMBIENT STANDARDS)

Area Code	Category of Area	Limit in dB(A) Leq.	
		Day time	Night time
A.	Industrial area	75	70
B.	Commercial area	65	55
C.	Residential area	55	45
D.	Silence Zone	50	40

Note – 1 : Day time is reckoned in between 6.00 A.M. and 9.00 P.M.

Note – 2 : Night time is reckoned in between 9.00P.M. and 6.00 A.M.

Note – 3 : Silence zone is defined as areas up to 100 meters around such premises as hospitals, educational institutions and courts. The silence zones are to be declared by the competent Authority.

Note – 4 : Mixed categories of areas should be declared as one of the four above mentioned categories by the competent Authority and the corresponding standard shall apply.

Source: EPA, 1986
[GSR 7, dated Dec.22, 1998]

26. Necessary steps are to be taken to maintain Ambient Air Quality standards in respect of Noise as per the Noise Pollution (Regulation and Control) Rules, 2000 as amended till date.
27. The screening unit should strictly follow the following standards for suspended particulates matter.

The following pollution control measures are to be implemented:

- a. Dust containment cum suppression system for the equipment.
 - b. Construction of wind breaking walls.
 - c. Construction of the metalled roads within the premises.
 - d. Regular cleaning and wetting of the ground within the premises.
 - e. Growing of a green belt along the periphery.
28. The unit should follow the guidelines as per **Appendix-'A'**.
29. The unit shall submit compliance report of the mandated conditions by April, 15, every year to Member Secretary, PCBA as well as to Regional Office, Silchar, PCBA.
30. The Board will have the liberty to withdraw the "**CONSENT TO ESTABLISH**" if adequate pollution control and safety measures are not taken.

Sd/-
(Dr. Shantanu Kr. Dutta)
Member Secretary

Memo No. WB/SLC/T-1184/21-22/06-A
1065

Dated Guwahati the, 22.10. 2021

Copy to:

- ✓ 1. M/s. Larsen & Toubro Ltd., Vill.: Longku, P.O.: Umrangso, Dist.: Dima Hasao, Pin-788931, (Assam) for information & necessary action. This has reference to online application vide **No. 581837**
2. The Commissioner of Industries & Commerce, Assam, Udyog Bhawan, Bamunimaidam, Guwahati-781021 for kind information.
3. The Regional Executive Engineer, Regional Laboratory cum Office, Silchar, Pollution Control Board, Assam for information & necessary action.

Shantanu Dutta 22/10/21
(Dr. Shantanu Kr. Dutta)
Member Secretary



Source : EPA, Notification
[GSR 1063 (E), dated Dec., 26, 1998]

3.22.0 DIESEL GENERATOR SETS : STACK HEIGHT

The minimum stack height to be provided with each generator set shall be worked out as per the following formula:- $H = h + 0.2 \sqrt{KVA}$, where H = Total height of stack in meter.

h = Height of the building in meters where generator set is installed.

KVA = Total generator capacity.

Adequate fire fighting measures have to be provided by the occupier of the premises. Based on the above formula the minimum stack height to be provided with different range of generator sets may be categories as follows:

Range of Generator sets	Minimum Stack Height
50 KVA	Ht. of the building + 1.5 metre.
50 - 100 KVA	Ht. of the building + 2.0 metre.
100 -150 KVA	Ht. of the building + 2.5 metre.
150 - 200 KVA	Ht. of the building + 3.0 metre.
200 - 250 KVA	Ht. of the building + 3.5 metre.
250 - 300 KVA	Ht. of the building + 3.5 metre.

Similarly for higher KVA rating a stack height can be worked out using the above formula.

Source : Evolved by CPCB
[Emission Regulations Part-IV: COINDS/26 1986-87]

4. A .32.0 Part – C

SI. No. 1 Stack Gas : PM – 150 $\mu\text{g}/\text{Nm}^3$

B. Ambient Air Standards:

Residential Area	Industrial Area	Sensitive Area
SO ₂ : 80* $\mu\text{g}/\text{m}^3$	120* : $\mu\text{g}/\text{m}^3$	30* : $\mu\text{g}/\text{m}^3$
NO ₂ : 80* $\mu\text{g}/\text{m}^3$	120* : $\mu\text{g}/\text{m}^3$	30* : $\mu\text{g}/\text{m}^3$
CO : 2.0** $\mu\text{g}/\text{m}^3$	5.0** : $\mu\text{g}/\text{m}^3$	1.0** : $\mu\text{g}/\text{m}^3$
*24 hourly; ** 8 hourly		

5. SCHEMATIC DIAGRAM OF D.G. SET IN AN ACOUSTIC ENCLOSURE No. Process/71/1998-99.

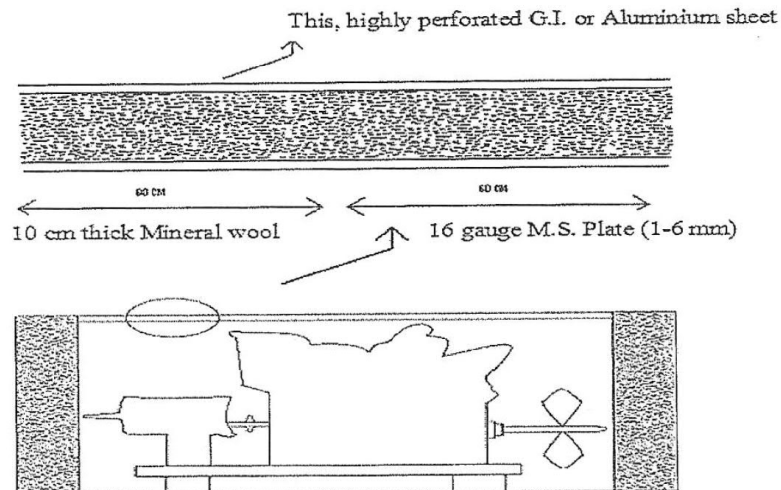


Fig. 4 Schematic Diagram of the DG set in an Acoustic Enclosure

Air required for the ventilation and breathing of the engine will have to be provided by means of intake louvers and exhaust louvers (called parallel baffle mufflers) projecting out of the enclosure.

(Dr. Shantanu Kr. Dutta)
Member Secretary
Pollution Control Board, Assam

Annexure 5 : Monitoring reports



Recognized by Pollution Control Board, Assam

TEST REPORT

AMBIENT NOISE LEVEL MEASUREMENT REPORT

Rep.No. ANLMR_1503163_06A_943 / 4/3
Sample ID: EETNE/JUNE/22/21

Date: 10/07/2021
ULR NO.: TC766921000000424P

Issued to : M/s. Lower Koplii Project, Near Lanka, Dist.- Dima Hasao, Assam.


SL. NO.	DATE OF SAMPLING	LOCATION /SOURCE	NOISE LEVEL in dB(A)Leq
			Day Time (6:00 am to 10:00 pm)
i)	02/07/21	Power Intale / Dam Site	48.1
ii)	01/07/21	Power House	47.2
iii)	05/07/21	Quarry Site	50.0
iv)	04/07/21	Crusher Site	51.2
v)	27/06/21	HRT Audit	48.6
vi)	28/06/21	APGCL Camp (Near Hospital/High way)	55.2
vii)	02/07/21	Batching plant	45.2
viii)	30/06/21	Surge Shaft Site	44.6
ix)	26/06/21	Worker Camp	51.2


Remarks: Noise level is carried out during 75% of the Day Time.
Method of analysis : CPCB July 2015
Sampling Instrument Used : Lutron SL-4033SD, HTC SL 1350

Ambient Noise Standards:

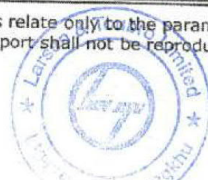
Area Code	Category of area	Limits in dB(A) Leq	
		Day (6:00 am to 10:00 pm)	Night (10:00 pm to 6:00 am)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

For Envision Enviro Technologies North East, Guwahati


Utpal Bezbaruah
(Environmental Chemist)


Dr. Pranita Chakraborty
Authorized by (Quality Manager)

Note: i) The results relate only to the parameters tested.
ii) The test report shall not be reproduced except in full, without written approval of laboratory.





Recognized by Pollution Control Board, Assam

NABL ACCREDITED
Certificate No. TC-7669

AMBIENT AIR ANALYSIS REPORT
Rep.No. AAAR_1503163_01_942 / 413
Sample ID: EETNE/JUNE/22/21
Issued to : M/s. Lower Kopli Project, Near Lanka, Dist.- Dima Hasao, Assam.

TESTREPORT

Date: 10/07/2021

ULR NO.: TC766921000000424P

Sample Drawn By : UTPAL BEZBARUAH
Sampling Plan & Procedure : EETNE/SOP/01
Analysis Duration : 26/06/21 TO 01/07/21, 30/06/21 TO 05/07/21, 01/07/21 TO 06/07/21
02/07/21 TO 06/07/21, 03/07/21 TO 08/07/21, 04/07/21 TO 09/07/21
05/07/21 TO 09/07/21, 28/06/21 TO 03/07/21
Sampling Instrument Used : AMBIENT AIR SAMPLER/RDS
Pollution Control Device, if any : NO/YES

SL. NO.	DATE OF SAMPLING	LOCATION/ SOURCE	WEATHER	PARAMETERS				
				PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	NO ₂ (µg/m ³)	* HC (mg/m ³)	*CO (mg/m ³)
i)	03/07/21	Power Intale / Dam Site	Clear	28	19.3	10	BDL	BDL
ii)	01/07/21	Power House		35.2	17.6	10.2	BDL	BDL
iii)	05/07/21	Quarry Site		38.1	18	11.1	BDL	BDL
iv)	04/07/21	Crusher Site		37.1	21.1	11.5	BDL	BDL
v)		HRT Audit		34.1	17.1	10.2	BDL	BDL
vi)	28/06/21	APGCL Camp (Near Hospital/High way)		33.1	19.1	9.2	0.01	0.03
vii)	02/07/21	Batching plant		32.6	20.6	8.2	BDL	BDL
viii)	30/06/21	Surge Shaft Site		34.3	17.5	10.1	BDL	BDL
ix)	26/06/21	Worker Camp		27.6	17.1	10.2	BDL	BDL

Remarks: - Sampling were done within the annual based.

NATIONAL AMBIENT AIR QUALITY STANDARDS:

Sl. No.	Pollutant	Test Method	Time Weighted Average	Concentration in Ambient Air	
				Industrial, Rural and Other Area	Residential
1	Particulate Matter (PM ₁₀), µg/m ³	IS:5182 Part-XXIII/ CPCB	Annual	60	
2	Particulate Matter (PM _{2.5}), µg/m ³	EETNE/SOP/01/2017	24 hours	40	100
			Annual	40	
3	Nitrogen Dioxide (NO ₂), µg/m ³	IS:5182 Part-VI/ CPCB	24 hours	40	60
			Annual	40	
4	Carbon Monoxide (CO), mg/m ³		24 hours	80	
			8 Hour	2.0	

Utpal
Utpal Bezbaruah
(Environmental Chemist)

For Envision Enviro Technologies North East, Guwahati

Dr. Pranita Chakraborty
Authorized by (Quality Manager)

Note: i) The results relate only to the parameters tested.
ii) The test report shall not be reproduced except in full, without written approval of laboratory.



Recognized by Pollution Control Board, Assam.

NABL ACCREDITED
Certificate No. TC-7669

TEST REPORT

STACK ANALYSIS REPORT

Report Code : SAR_1503163_02_944 / 113
Sample ID: EETNE/JUNE/22/21

Date: 10/07/2021
ULR NO.: TC766921000000424P

Issued to : M/s. Lower Kopili Project, Near Lanka, Dist.- Dima Hasao, Assam.

Sample Drawn By : UTPAL BEZBARUAH
Sampling Plan & Procedure : EETNE/SOP/01
Analysis Duration : 01/07/2021 TO 10/07/2021
Sampling Instrument Used : STACK KIT/FLUE GAS ANALYZER
Pollution Control Device, if any : NO/YES

SL. NO.	DATE OF SAMPLING	STACK DESCRIPTION	PARAMETERS
			Particulate Matter (g/kwhr)
i)	01/07/21	Stack attached to DG set - 125 KVA	0.18
ii)	04/07/21	Stack attached to DG set - 250 KVA	0.15

Method of analysis: IS 11255 Part-III : 2008 RA
Emission Standards for Diesel Engine for generator set :

Engine Power(P)	Parameter	Standards
75KW < P ≤ 800KW	Particulate Matter	0.2 g/kwhr

SL. NO.	DATE OF SAMPLING	STACK DESCRIPTION	PARAMETERS	REMARKS
			Particulate Matter (g/kwhr)	
iii)	05/07/21	Stack attached to DG set- 15 KVA	0.22	-Data is within the permissible limit

Method of analysis: IS 11255 Part-III : 2008 RA

Emission Standards for Diesel Engine for generator set :

Power Category	Emission Limit
19KW < P ≤ 75KW	Particulate Matter 0.3 g/kwhr

Utpal Bezbaruah
(Environmental Chemist)



Dr. Pranita Chakraborty
Authorized by
(Quality Manager)

Note: i) The results relate only to the parameters tested.
ii) The test report shall not be reproduced except in full, without written approval of laboratory.



TEST REPORT:

Report No: 210706_1503163_0

ULR No: TC76692100000056P

Sample ID No: EETNE/June/01/21/D

Test Starting Date: 19/06/21

Date of Report: 06/07/21

Date of sample receipt: 19/06/21

Test completion Date: 05/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Ground Water + QC			Source: Brahmaputra Block		
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date	Time	Temperature	p ^H	Quantity Drawn:	Sampling Method:
	12/06/2021	10:15.A.M	30°C	6.60	4L	EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method
1	p ^H	---	6.61	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95
2	Turbidity	NTU	1.26	APHA 23 rd Edition,2130,Page:2-13
3	TDS	mg/L	210	APHA 23 rd Edition,2540 C ,Page :2-69
4	TSS	mg/L	91.4	APHA 23 rd Edition,2540,Page:2-70
5	Oil and Grease	mg/L	<5	APHA 23 rd Edition,5520 B,Page:5-42
6	Dissolved Oxygen	mg/L	5.4	APHA 23 rd Edition,4500-O C,Page:4-146
7	Total hardness	mg/L	95.2	APHA 23 rd Edition,2340 B,Page:2-48
8	Calcium	mg/L	26.9	APHA 23 rd Edition,3500-Ca B,Page:3-69
9	Magnesium	mg/L	16.5	APHA 23 rd Edition,3500-Mg B,Page:3-86
10	Total Alkalinity	mg/L	162	APHA 23 rd Edition,2320,Page:2-37
11	Chloride	mg/L	21.8	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75
12	Sulphate	mg/L	11.4	APHA 23 rd Edition,4500-SO ₄ ²⁻ E,Page:4-199
13	Nitrates	mg/L	6.4	APHA 23 rd Edition,4500-NO ₃ ⁻ B,Page:4-127
14	Phosphate	mg/L	<0.02	APHA 23 rd Edition,4500-P,Page:4-163
15	Conductivity	µS	220	APHA 23 rd Edition,2520B,Page:2-60





Sample ID No: EETNE/June/01/21/D
Test Starting Date: 19/06/21


Date of sample receipt: 19/06/21
Test completion Date: 05/07/21

Sl No.	Parameters	Unit	Result	Reference Method
16	Arsenic	µg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36
17	Iron(as Fe)	mg/L	0.94	APHA 23 rd Edition,3500-Fe B,Page:3-80
18	Salinity	%	0.1	APHA 23 rd Edition,2520B,Page:2-60
19	Total Coliform	MPN/100mL	3	APHA 23 rd Edition,9222B,Page:9-81
20	Fecal Coliform	MPN/100mL	Nil	APHA 23 rd Edition,9222 D,Page:9-89
21	Organic Matter	mg/L	1.5	APHA 23 rd Edition
22	Inorganic Matter	mg/L	18.7	APHA 23 rd Edition
23	Required NaOH to Neutralize	ml	Nil	APHA 23 rd Edition
24	Required HCl to Neutralize	ml	Nil	APHA 23 rd Edition
25	BOD	mg/L	10	APHA 23 rd Edition,5210B,Page:5-6
26	COD	mg/L	24	APHA 23 rd Edition,5220 b,Page:5-18

NOTE: (BOD) Biochemical Oxygen Demand, (COD) Chemical Oxygen Demand, (TSS) Total Suspended Solids, (TDS) Total Dissolved Solids.

For Envision Enviro Technologies North East


Rimpi Sarma
Environmental Chemist
Test Done By


Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

Note: : i) The results relate only to the parameters tested.
ii) The test report shall not be reproduced except in full, without written approval of laboratory
iii) Parameter no.11 to 24 were analysed by Department of Chemistry, B. Borooah College as per our MOU.
End of report



TEST REPORT:

Report No: 210706_1503163_0
ULR No: TC76692100000057P
Sample ID No: EETNE/June/02/21/D
Test Starting Date: 19/06/21

Date of Report: 06/07/21
Date of sample receipt: 19/06/21
Test completion Date: 05/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Ground Water + QC			Source: Near Store		
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date 12/06/2021	Time 10:35.A.M	Temperature 31°C	p ^H 7.69	Quantity Drawn:4L	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method
1	p ^H	---	7.71	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95
2	Turbidity	NTU	5.9	APHA 23 rd Edition,2130,Page:2-13
3	TDS	mg/L	186.1	APHA 23 rd Edition,2540 C ,Page :2-69
4	TSS	mg/L	41.6	APHA 23 rd Edition,2540,Page:2-70
5	Oil and Grease	mg/L	<5	APHA 23 rd Edition,5520 B,Page:5-42
6	Dissolved Oxygen	mg/L	5.1	APHA 23 rd Edition,4500-O C,Page:4-146
7	Total hardness	mg/L	151.2	APHA 23 rd Edition,2340 B,Page:2-48
8	Calcium	mg/L	25.2	APHA 23 rd Edition,3500-Ca B,Page:3-69
9	Magnesium	mg/L	14.8	APHA 23 rd Edition,3500-Mg B,Page:3-86
10	Total Alkalinity	mg/L	445.5	APHA 23 rd Edition,2320,Page:2-37
11	Chloride	mg/L	21.5	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75
12	Sulphate	mg/L	8.6	APHA 23 rd Edition,4500-SO ₄ ²⁻ E,Page:4-199
13	Nitrates	mg/L	4.2	APHA 23 rd Edition,4500-NO ₃ ⁻ B,Page:4-127
14	Phosphate	mg/L	<0.02	APHA 23 rd Edition,4500-P,Page:4-163
15	Conductivity	µS	88.8	APHA 23 rd Edition,2520B,Page:2-60





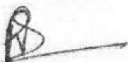
Sample ID No: EETNE/June/02/21/D
Test Starting Date: 19/06/21

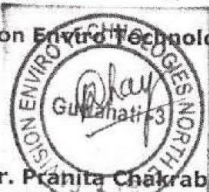
Date of sample receipt: 19/06/21
Test completion Date: 05/07/21

Sl No.	Parameters	Unit	Result	Reference Method
16	Arsenic	µg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36
17	Iron(as Fe)	mg/L	1.2	APHA 23 rd Edition,3500-Fe B,Page:3-80
18	Salinity	%	0.2	APHA 23 rd Edition,2520B,Page:2-60
19	Total Coliform	MPN/100mL	3	APHA 23 rd Edition,9222B,Page:9-81
20	Fecal Coliform	MPN/100mL	Nil	APHA 23 rd Edition,9222 D,Page:9-89
21	Organic Matter	mg/L	0.75	APHA 23 rd Edition
22	Inorganic Matter	mg/L	16.8	APHA 23 rd Edition
23	Required NaOH to Neutralize	ml	Nil	APHA 23 rd Edition
24	Required HCl to Neutralize	ml	14.4	APHA 23 rd Edition
25	BOD	mg/L	8.5	APHA 23 rd Edition,5210B,Page:5-6
26	COD	mg/L	23	APHA 23 rd Edition,5220 b,Page:5-18

NOTE: (BOD) Biochemical Oxygen Demand, (COD) Chemical Oxygen Demand, (TSS) Total Suspended Solids, (TDS) Total Dissolved Solids.

For Envision Enviro Technologies North East


Rimpi Sarma
Environmental Chemist
Test Done By


Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

Note: : i) The results relate only to the parameters tested.
ii) The test report shall not be reproduced except in full, without written approval of laboratory
iii) Parameter no.11 to 24 were analysed by Department of Chemistry, B.Borooh College as per our MOU.
End of report





Recognized by Pollution Control Board, Assam

TEST REPORT:
Report No: 210706_1503163_0
ULR No:TC76692100000066P
Sample ID No: EETNE/June/10/21/D
Test Starting Date: 19/06/21

Date of Report: 06/07/21
Date of sample receipt: 19/06/21
Test completion Date: 05/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Surface Water + QC				Source: Lonku Nala	
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date 12/06/2021	Time 03:15 P.M	Temperature 31°C	pH 7.62	Quantity Drawn:4Ltg	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method
1	p ^H	---	7.54	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95
2	Turbidity	NTU	4.5	APHA 23 rd Edition,2130,Page:2-13
3	TDS	mg/L	135.8	APHA 23 rd Edition,2540 C, Page :2-69
4	TSS	mg/L	87.6	APHA 23 rd Edition,2540,Page:2-70
5	Oil and Grease	mg/L	<5	APHA 23 rd Edition,5520 B,Page:5-42
6	Dissolved Oxygen	mg/L	7.1	APHA 23 rd Edition,4500-O C,Page:4-146
7	Total hardness	mg/L	84	APHA 23 rd Edition,2340 B,Page:2-48
8	Calcium	mg/L	20.9	APHA 23 rd Edition,3500-Ca B,Page:3-69
9	Magnesium	mg/L	15.3	APHA 23 rd Edition,3500-Mg B,Page:3-86
10	Total Alkalinity	mg/L	121	APHA 23 rd Edition,2320,Page:2-37
11	Chloride	mg/L	24.2	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75
12	Sulphate	mg/L	16.2	APHA 23 rd Edition,4500-SO ₄ ²⁻ E,Page:4-199
13	Nitrates	mg/L	8.1	APHA 23 rd Edition,4500-NO ₃ ⁻ B,Page:4-127
14	Phosphate	mg/L	0.04	APHA 23 rd Edition,4500-P,Page:4-163
15	conductivity	µS/cm	190	APHA 23 rd Edition,2520B,Page:2-60





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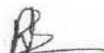
Sample ID No: EETNE/June/10/21/D
Test Starting Date: 19/06/21


Date of sample receipt: 19/06/21
Test completion Date: 05/07/21

SI No.	Parameters	Unit	Result	Reference Method
16	Arsenic	µg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36
17	Iron(as Fe)	mg/L	1.4	APHA 23 rd Edition,3500-Fe B,Page:3-80
18	Salinity	%	0.1	APHA 23 rd Edition,2520B,Page:2-60
19	Total Coliform	MPN/100mL	6	APHA 23 rd Edition,9222B,Page:9-81
20	Fecal Coliform	MPN/100mL	Nil	APHA 23 rd Edition,9222 D,Page:9-89
21	Organic Matter	mg/L	1.8	APHA 23 rd Edition
22	Inorganic Matter	mg/L	32.8	APHA 23 rd Edition
23	Required NaOH to Neutralize	ml	Nil	APHA 23 rd Edition
24	Required HCl to Neutralize	ml	13.8	APHA 23 rd Edition
25	BOD	mg/L	13	APHA 23 rd Edition,5210B,Page:5-6
26	COD	mg/L	29	APHA 23 rd Edition,5220 b,Page:5-18

NOTE: (BOD) Biochemical Oxygen Demand, (COD) Chemical Oxygen Demand, (TSS) Total Suspended solids (TDS) Total Dissolved Solids.

For Envision Enviro Technologies North East, Guwahati


Rimpi Sarma
Environmental Chemist
Test Done By


Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

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End of report





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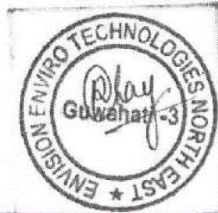
TEST REPORT:

Report No: 210706_1503163_0
ULR No:TC76692100000065P
Sample ID No: EETNE/June/11/21/D
Test Starting Date: 19/06/21

Date of Report: 06/07/21
Date of sample receipt: 19/06/21
Test completion Date: 05/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Surface Water + QC				Source: Kala Nala	
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date 12/06/2021	Time 03:45 P.M	Temperature 31°C	pH 7.2	Quantity Drawn:4Ltg	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method
1	pH	---	7.18	APHA 23 rd Edition, 4500 H ⁺ , Page:4-95
2	Turbidity	NTU	35	APHA 23 rd Edition, 2130, Page:2-13
3	TDS	mg/L	134.8	APHA 23 rd Edition, 2540 C, Page :2-69
4	TSS	mg/L	22.5	APHA 23 rd Edition, 2540, Page:2-70
5	Oil and Grease	mg/L	<5	APHA 23 rd Edition, 5520 B, Page:5-42
6	Dissolved Oxygen	mg/L	4.2	APHA 23 rd Edition, 4500-O C, Page:4-146
7	Total hardness	mg/L	89.6	APHA 23 rd Edition, 2340 B, Page:2-48
8	Calcium	mg/L	25.8	APHA 23 rd Edition, 3500-Ca B, Page:3-69
9	Magnesium	mg/L	15.5	APHA 23 rd Edition, 3500-Mg B, Page:3-86
10	Total Alkalinity	mg/L	128.2	APHA 23 rd Edition, 2320, Page:2-37
11	Chloride	mg/L	22.8	APHA 23 rd Edition, 4500-Cl ⁻ B, Page:4-75
12	Sulphate	mg/L	12.8	APHA 23 rd Edition, 4500-SO ₄ ²⁻ E, Page:4-199
13	Nitrates	mg/L	6.4	APHA 23 rd Edition, 4500-NO ₃ ⁻ B, Page:4-127
14	Phosphate	mg/L	0.03	APHA 23 rd Edition, 4500-P, Page:4-163
15	conductivity	µS/cm	150	APHA 23 rd Edition, 2520B, Page:2-60





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Sample ID No: EETNE/June/11/21/D
Test Starting Date: 19/06/21


Date of sample receipt: 19/06/21
Test completion Date: 05/07/21

SI No.	Parameters	Unit	Result	Reference Method
16	Arsenic	µg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36
17	Iron(as Fe)	mg/L	0.82	APHA 23 rd Edition,3500-Fe B,Page:3-80
18	Salinity	%	<0.1	APHA 23 rd Edition,2520B,Page:2-60
19	Total Coliform	MPN/100mL	4	APHA 23 rd Edition,9222B,Page:9-81
20	Fecal Coliform	MPN/100mL	Nil	APHA 23 rd Edition,9222 D,Page:9-89
21	Organic Matter	mg/L	1.2	APHA 23 rd Edition
22	Inorganic Matter	mg/L	24.7	APHA 23 rd Edition
23	Required NaOH to Neutralize	ml	Nil	APHA 23 rd Edition
24	Required HCl to Neutralize	ml	10.6	APHA 23 rd Edition
25	BOD	mg/L	14	APHA 23 rd Edition,5210B,Page:5-6
26	COD	mg/L	76	APHA 23 rd Edition,5220 b,Page:5-18

NOTE: (BOD) Biochemical Oxygen Demand, (COD) Chemical Oxygen Demand, (TSS) Total Suspended solids (TDS) Total Dissolved Solids.

For Envision Enviro Technologies North East, Guwahati


Rimpi Sarma
Environmental Chemist
Test Done By


Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

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End of report



Page 2 of 2

House No. 6, 1st Floor, Sankardev Path, Pub-Sarania, Chandmari, Guwahati-781003, Assam.

Phone : +91 8811096201 ♦ e-mail : envisionghy@gmail.com



Recognized by Pollution Control Board, Assam

TEST REPORT:

Report No: 210717_1503163_0
ULR No:TC766921000000087P
Sample ID No: EETNE/July/05/21/D
Test Starting Date: 06/07/21

Date of Report: 17/07/21
Date of sample receipt: 06/07/21
Test completion Date: 17/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Surface Water(Submergence area, dam site)			Source: Kopili River		
Sample collected by	M/s. En-vision Enviro Technologies North East					
Sample Collection Particulars	Date 03/07/2021	Time 02:00 P.M	Temperature 31°C	p ^H 4.6	Quantity Drawn:4L	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500:2012
					Permissible Limit
1	p ^H	---	4.57	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5
2	Turbidity	NTU	1.99	APHA 23 rd Edition,2130,Page:2-13	5
3	TDS	mg/L	41.6	APHA 23 rd Edition,2540 C, Page :2-69	2000
4	TSS	mg/L	70.1	APHA 23 rd Edition,2540,Page:2-70	----
5	Oil and GREASE	mg/L	<5	APHA 23 rd Edition,5520 B,Page:5-42	----
6	Dissolved Oxygen	mg/L	6.8	APHA 23 rd Edition,4500-O C,Page:4-146	----
7	Total hardness	mg/L	57.6	APHA 23 rd Edition,2340 B,Page:2-48	600
8	Calcium	mg/L	34.3	APHA 23 rd Edition,3500-Ca B,Page:3-69	200
9	Magnesium	mg/L	21.8	APHA 23 rd Edition,3500-Mg B,Page:3-86	100
10	Total Alkalinity	mg/L	15.7	APHA 23 rd Edition,2320,Page:2-37	600
11	Sulphate	mg/L	10.2	APHA 23 rd Edition,4500-SO ₄ ²⁻ E,Page:4-199	400
12	Nitrates	mg/L	6.5	APHA 23 rd Edition,4500-NO ₃ B,Page:4-127	No relaxation
13	Phosphate	mg/L	<0.02	APHA 23 rd Edition,4500-P,Page:4-163	No relaxation
14	Salinity	%	0.3	APHA 23 rd Edition,2520B,Page:2-60	No relaxation
15	conductivity	µS/cm	97.5	APHA 23 rd Edition,2520B,Page:2-60	No relaxation





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Sample ID No: EETNE/July/04/21/D
Test Starting Date: 06/07/21


Date of sample receipt: 06/07/21
Test completion Date: 17/07/21

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500:2012
					Permissible Limit
16	Arsenic	mg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36	No relaxation
17	Iron(as Fe)	mg/L	1.3	APHA 23 rd Edition,3500-Fe B,Page:3-80	No relaxation
18	Total Coliform	MPN/100	2	APHA 23 rd Edition,9222B,Page:9-81	Shall not be detectable in any 100 ml Sample
19	Fecal Coliform	MPN/100	Nil	APHA 23 rd Edition,9222 D,Page:9-89	Shall not be detectable in any 100 ml Sample
20	BOD	mg/L	3.5	APHA 23 rd Edition,5210B,Page:5-6	No relaxation
21	COD	mg/L	120.8	APHA 23 rd Edition,5220 b,Page:5-18	No relaxation

NOTE: (BOD) Biochemical Oxygen Demand, (COD) Chemical Oxygen Demand, (TSS) Total Suspended solids (TDS) Total Dissolved Solids.

For Envision Enviro Technologies North East, Guwahati




Rimpi Sarma
Environmental Chemist
Test Done By

Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

Note: i) The results relate only to the parameters tested.
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End of report





Recognized by Pollution Control Board, Assam

TEST REPORT:

Report No: 210717_1503163_0
ULR No:TC76692000000083P
Sample ID No: EETNE/July/01/21/D
Test Starting Date: 06/07/21

Date of Report: 17/07/21
Date of sample receipt: 06/07/21
Test completion Date: 17/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Surface Water (1 km D/S of dam site)				Source: Kopili River	
Sample collected by	M/s. En-vision Enviro Technologies North East					
Sample Collection Particulars	Date 03/07/2021	Time 03:30 P.M	Temperature 31°C	pH 4.9	Quantity Drawn:4Lt	Sampling Method: EETNE/SOP/02

SI No.	Parameters	Unit	Result	Reference Method	IS 10500:2012
					Permissible Limit
1	pH	---	5.20	APHA 23 rd Edition, 4500 H ⁺ , Page: 4-95	6.5-8.5
2	Turbidity	NTU	3.9	APHA 23 rd Edition, 2130, Page: 2-13	5
3	TDS	mg/L	31.8	APHA 23 rd Edition, 2540 C, Page: 2-69	2000
4	TSS	mg/L	76.3	APHA 23 rd Edition, 2540, Page: 2-70	---
5	Oil and Grease	mg/L	<5	APHA 23 rd Edition, 5520 B, Page: 5-42	---
6	Dissolved Oxygen	mg/L	6.4	APHA 23 rd Edition, 4500-O C, Page: 4-146	---
7	Total hardness	mg/L	63.9	APHA 23 rd Edition, 2340 B, Page: 2-48	600
8	Calcium	mg/L	33.7	APHA 23 rd Edition, 3500-Ca B, Page: 3-69	200
9	Magnesium	mg/L	25.2	APHA 23 rd Edition, 3500-Mg B, Page: 3-86	100
10	Total Alkalinity	mg/L	24.7	APHA 23 rd Edition, 2320, Page: 2-37	600
11	Sulphate	mg/L	18.4	APHA 23 rd Edition, 4500-SO ₄ ²⁻ E, Page: 4-199	400
12	Nitrates	mg/L	4.5	APHA 23 rd Edition, 4500-NO ₃ ⁻ B, Page: 4-127	No relaxation
13	Phosphate	mg/L	<0.02	APHA 23 rd Edition, 4500-P, Page: 4-163	No relaxation
14	Salinity	%	0.1	APHA 23 rd Edition, 2520B, Page: 2-60	No relaxation
15	conductivity	µS/cm	76.9	APHA 23 rd Edition, 2520B, Page: 2-60	No relaxation






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Sample ID No: EETNE/July/02/21/D
Test Starting Date: 06/07/21

Date of sample receipt: 06/07/21
Test completion Date: 17/07/21

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500:2012 *
					Permissible Limit
16	Arsenic	mg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36	No relaxation
17	Iron(as Fe)	mg/L	0.75	APHA 23 rd Edition,3500-Fe B,Page:3-80	No relaxation
18	Total Coliform	MPN/100ml	3	APHA 23 rd Edition,9222B,Page:9-81	Shall not be detectable in any 100 ml Sample
19	Fecal Coliform	MPN/100ml	Nil	APHA 23 rd Edition,9222 D,Page:9-89	Shall not be detectable in any 100 ml Sample
20	BOD	mg/L	6.4	APHA 23 rd Edition,5210B,Page:5-6	No relaxation
21	COD	mg/L	53	APHA 23 rd Edition,5220 b,Page:5-18	No relaxation

For Envision Enviro Technologies North East, Guwahati


Rimpi sarma
Environmental Chemist
Test Done By


Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

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End of report





Recognized by Pollution Control Board, Assam

TEST REPORT:

Report No: 210717_1503163_0
ULR No: TC76692100000085P
Sample ID No: EETNE/July/03/21/D
Test Starting Date: 06/07/20

Date of Report: 17/07/21
Date of sample receipt: 06/07/21
Test completion Date: 17/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Surface Water (3 km D/S of dam site)				Source: Kopili River	
Sample collected by	M/s. En-vision Enviro Technologies North East					
Sample Collection Particulars	Date 03/07/2021	Time 04:05 P.M	Temperature 31°C	p ^H 4.8	Quantity Drawn:4L	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500:2012
					Permissible Limit
1	p ^H	---	4.89	APHA 23 rd Edition, 4500 H ⁺ , Page:4-95	6.5-8.5
2	Turbidity	NTU	1.56	APHA 23 rd Edition, 2130, Page:2-13	5
3	TDS	mg/L	33.2	APHA 23 rd Edition, 2540 C, Page :2-69	2000
4	TSS	mg/L	84.6	APHA 23 rd Edition, 2540, Page:2-70	----
5	Oil and Grease	mg/L	<5	APHA 23 rd Edition, 5520 B, Page:5-42	----
6	Dissolved Oxygen	mg/L	6.5	APHA 23 rd Edition, 4500-O C, Page:4-146	----
7	Total hardness	mg/L	56.7	APHA 23 rd Edition, 2340 B, Page:2-48	600
8	Calcium	mg/L	29.8	APHA 23 rd Edition, 3500-Ca B, Page:3-69	200
9	Magnesium	mg/L	21.2	APHA 23 rd Edition, 3500-Mg B, Page:3-86	100
10	Total Alkalinity	mg/L	19.4	APHA 23 rd Edition, 2320, Page:2-37	600
11	Sulphate	mg/L	10.3	APHA 23 rd Edition, 4500-SO ₄ ²⁻ E, Page:4-199	400
12	Nitrates	mg/L	7.7	APHA 23 rd Edition, 4500-NO ₃ ⁻ B, Page:4-127	No relaxation
13	Phosphate	mg/L	<0.02	APHA 23 rd Edition, 4500-P, Page:4-163	No relaxation
14	Salinity	%	0.1	APHA 23 rd Edition, 2520B, Page:2-60	No relaxation
15	Conductivity	µS/cm	85.6	APHA 23 rd Edition, 2520B, Page:2-60	No relaxation





Recognized by Pollution Control Board, Assam

Sample ID No: EETNE/July/01/21/D
Test Starting Date: 06/07/21

Date of sample receipt: 06/07/21
Test completion Date: 17/07/21

SI No.	Parameters	Unit	Result	Reference Method	IS 10500:2012
					Permissible Limit
16	Arsenic	mg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36	No relaxation
17	Iron(as Fe)	mg/L	0.64	APHA 23 rd Edition,3500-Fe B,Page:3-80	No relaxation
18	Total Coliform	MPN/100	3	APHA 23 rd Edition,9222B,Page:9-81	Shall not be detectable in any 100 ml Sample
19	Fecal Coliform	MPN/100	Nil	APHA 23 rd Edition,9222 D,Page:9-89	Shall not be detectable in any 100 ml Sample
20	BOD	mg/L	4.8	APHA 23 rd Edition,5210B,Page:5-6	No relaxation
21	COD	mg/L	77	APHA 23 rd Edition,5220 b,Page:5-18	No relaxation

NOTE: (BOD) Biochemical Oxygen Demand, (COD) Chemical Oxygen Demand, (TSS) Total Suspended solids (TDS) Total Dissolved Solids.

For Envision Enviro Technologies North East, Guwahati



Rimpi Sarma
Environmental Chemist
Test Done By

Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

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End of report





Recognized by Pollution Control Board, Assam

TEST REPORT:

Report No: 210717_1503163_0
ULR No:TC76692100000086P
Sample ID No: EETNE/July/04/21/D
Test Starting Date: 06/07/21

Date of Report: 17/07/21
Date of sample receipt: 06/07/21
Test completion Date: 17/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: Surface Water (8 km D/S of dam site)			Source: Kopili River		
Sample collected by	M/s. En-vision Enviro Technologies North East					
Sample Collection Particulars	Date 05/07/2021	Time 03:45 P.M	Temperature 31°C	p ^H 4.9	Quantity Drawn:4L	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500:2012
					Permissible Limit
1	p ^H	---	5.19	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5
2	Turbidity	NTU	2.92	APHA 23 rd Edition,2130,Page:2-13	5
3	TDS	mg/L	37.5	APHA 23 rd Edition,2540 C, Page :2-69	2000
4	TSS	mg/L	79.8	APHA 23 rd Edition,2540,Page:2-70	----
5	Oil and Grease	mg/L	<5	APHA 23 rd Edition,5520 B,Page:5-42	----
6	Dissolved Oxygen	mg/L	6.6	APHA 23 rd Edition,4500-O C,Page:4-146	100
7	Total hardness	mg/L	97.5	APHA 23 rd Edition,2340 B,Page:2-48	600
8	Calcium	mg/L	48.3	APHA 23 rd Edition,3500-Ca B,Page:3-69	200
9	Magnesium	mg/L	19.2	APHA 23 rd Edition,3500-Mg B,Page:3-86	100
10	Total Alkalinity	mg/L	121.4	APHA 23 rd Edition,2320,Page:2-37	600
11	Sulphate	mg/L	13.6	APHA 23 rd Edition,4500-SO ₄ ²⁻ E,Page:4-199	400
12	Nitrates	mg/L	7.3	APHA 23 rd Edition,4500-NO ₃ ⁻ B,Page:4-127	No relaxation
13	Phosphate	mg/L	<0.02	APHA 23 rd Edition,4500-P,Page:4-163	No relaxation
14	Salinity	%	0.3	APHA 23 rd Edition,2520B,Page:2-60	No relaxation
15	Conductivity	µS/cm	112	APHA 23 rd Edition,2520B,Page:2-60	No relaxation

Page 1 of 2



House No. 6, 1st Floor, Sankardev Path, Pub-Sarania, Chandmari, Guwahati-781003, Assam.

Phone : +91 8811096201 ♦ e-mail : envisionghy@gmail.com



Recognized by Pollution Control Board, Assam

Sample ID No: EETNE/July/03/21/D
 Test Starting Date: 06/07/21

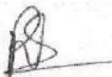
Date of sample receipt: 06/07/21
 Test completion Date: 17/07/21

SI No.	Parameters	Unit	Result	Reference Method	IS 10500:2012
					Permissible Limit
16	Arsenic	mg/L	<0.001	APHA 23 rd Edition,3114A,Page:3-36	No relaxation
17	Iron(as Fe)	mg/L	1.13	APHA 23 rd Edition,3500-Fe B,Page:3-80	No relaxation
18	Total Coliform	MPN/100	3	APHA 23 rd Edition,9222B,Page:9-81	Shall not be detectable in any 100 ml Sample
19	Fecal Coliform	MPN/100	Nil	APHA 23 rd Edition,9222 D,Page:9-89	Shall not be detectable in any 100 ml Sample
20	BOD	mg/L	4.8	APHA 23 rd Edition,5210B,Page:5-6	No relaxation
21	COD	mg/L	52	APHA 23 rd Edition,5220 b,Page:5-18	No relaxation

NOTE: (BOD) Biochemical Oxygen Demand, (COD) Chemical Oxygen Demand,(TSS)Total Suspended Solids, (TDS) Total Dissolved Solids.

For Envision Enviro Technologies North East, Guwahati




Rimpi Sarma
 Environmental Chemist
 Test Done By

Dr. Pranita Chakraborty
 Quality Manager
 Authorized Signatory

Note: i) The results relate only to the parameters tested.
 ii) The test report shall not be reproduced except in full, without written approval of laboratory
 iii) Parameter no.11 to 19 are analyzed by Department of Chemistry,B.Borooh College as per our MOU.
End of report





TEST REPORT:

Report No: 210706_1503163_0

ULR NO-TC766921000000062P

Sample ID No: EETNE/June/07/21/D

Test Starting Date: 19/06/21

Date of Report: 06/07/21

NABL ACCREDITED

Date of sample receipt: 09/06/21

Test completion Date: 02/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: RO Water			Source: Central Mess		
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date 12/06/2021	Time 12:55 P.M	Temperature 30°C	p ^H 6.52	Quantity Drawn:4L	Sampling Method: EETNE/SOP#02

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500: 2012	
					Acceptable limit	Permissible limit
1	p ^H	---	6.5	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5	No relaxation
1	Turbidity	NTU	0.45	APHA 23 rd Edition,2130,Page:2-13	1.0	5.0
2	Total hardness	mg/L	78.4	APHA 23 rd Edition,2340 B,Page:2-48	200	600
3	Total Alkalinity	mg/L	94.5	APHA 23 rd Edition,2320 B,Page:2-37	200	600
4	Residual Chlorine	mg/L	<0.01	APHA 23 rd Edition,4500-Cl B,Page:4-63	0.2	1.0
5	Fluoride	mg/L	0.41	APHA 23 rd Edition,4500-F ⁻ D,Page:4-90	1.0	1.5
6	Chloride	mg/L	12.6	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75	250	1000
7	Iron(as Fe)	mg/L	0.11	APHA 23 rd Edition,3500-Fe B,Page:3-80	0.3	No relaxation
8	Total coliform	MPN/100 ml	Nil	APHA 23 rd Edition,9222B,Page:9-81	Absent	Absent

For Envision Enviro Technologies North East

Rimpi Sarma
Environmental Chemist
Test Done By

Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

Note: i) The results relate only to the parameters tested.
ii) The test report shall not be reproduced except in full, without written approval of laboratory.
iii) Parameter no.4 to 8 are analyzed by Department of Chemistry, B. Borooah College as per our MOU.
End of report





NABL ACCREDITED

Certificate No. TC-7669

TEST REPORT:

Report No: 210706_1503163_0

ULR NO-TC76692100000060P

Sample ID No: EETNE/June/05/21/D

Test Starting Date: 19/06/21


Date of Report: 06/07/21

Date of sample receipt: 19/06/21


Test completion Date: 02/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: RO Water			Source: PM House		
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date 12/06/2021	Time 12:15 P.M	Temperature 31°C	p ^H 6.65	Quantity Drawn:4L	Sampling Method: ⁹ EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500: 2012	
					Acceptable limit	Permissible limit
1	p ^H	---	6.76	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5	No relaxation
1	Turbidity	NTU	0.42	APHA 23 rd Edition,2130,Page:2-13	1.0	5.0
2	Total hardness	mg/L	42	APHA 23 rd Edition,2340 B,Page:2-48	200	600
3	Total Alkalinity	mg/L	155.2	APHA 23 rd Edition,2320 B,Page:2-37	200	600
4	Residual Chlorine	mg/L	<0.01	APHA 23 rd Edition,4500-Cl B,Page:4-63	0.2	1.0
5	Fluoride	mg/L	0.37	APHA 23 rd Edition,4500-F ⁻ D,Page:4-90	1.0	1.5
6	Chloride	mg/L	16.4	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75	250	1000
7	Iron(as Fe)	mg/L	0.08	APHA 23 rd Edition,3500-Fe B,Page:3-80	0.3	No relaxation
8	Total coliform	MPN/100 ml	Nil	APHA 23 rd Edition,9222B,Page:9-81	Absent	Absent


Rimpi Sarma
Environmental Chemist
Test Done By

For Envision Enviro Technologies North East


Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

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End of report





NABL ACCREDITED

TEST REPORT:

Report No: 210707_1503163_0

ULR NO-TC76692100000063P

Sample ID No: EETNE/June/08/21/D

Test Starting Date: 19/06/21

Date of Report: 06/07/21 Certificate No. TC-7669


Date of sample receipt: 19/06/21

Test completion Date: 02/07/21

Name & Address of Client		M/s. Lower Kopill Project. Near Lanka, Dist: Dima Hasao.				
Sample Description		Type: RO Water	Source: L P Road Mess			
Sample collected by		Mr. Anandhapandi Jointly with PMC				
Sample Collection Particulars		Date 12/06/2021	Time 12:55 P.M	Temperature 31°C	p ^H 6.25	Quantity Drawn:4L
		Sampling Method EETNE/SOP/02				

SI No.	Parameters	Unit	Result	Reference Method	IS 10500: 2012	
					Acceptable limit	Permissible limit
1	p ^H	---	6.23	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5	No relaxation
1	Turbidity	NTU	<.2	APHA 23 rd Edition,2130,Page:2-13	1.0	5.0
2	Total hardness	mg/L	25	APHA 23 rd Edition,2340 B,Page:2-48	200	600
3	Total Alkalinity	mg/L	40.5	APHA 23 rd Edition,2320 B,Page:2-37	200	600
4	Residual Chlorine	mg/L	<0.01	APHA 23 rd Edition,4500-Cl B,Page:4-63	0.2	1.0
5	Fluoride	mg/L	0.39	APHA 23 rd Edition,4500-F ⁻ D,Page:4-90	1.0	1.5
6	Chloride	mg/L	14.2	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75	250	1000
7	Iron(as Fe)	mg/L	0.14	APHA 23 rd Edition,3500-Fe B,Page:3-80	0.3	No relaxation
8	Total coliform	MPN/100 ml	Nil	APHA 23 rd Edition,9222B,Page:9-81	Absent	Absent

For Envision Enviro Technologies North East


Rimpi Sarma
Environmental Chemist
Test Done By


Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

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End of report





NABL ACCREDITED

TEST REPORT:

Report No: 210706_1503163_0
ULR NO-TC766921000000061P
Sample ID No: EETNE/June/06/21/D
Test Starting Date: 19/06/21

Date of Report: 06/07/21 Certificate No. TC-7669
Date of sample receipt: 19/06/21
Test completion Date: 02/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: RO Water	Source: College Road mess				
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date 12/06/2021	Time 12:30 P.M	Temperature 31°C	p ^H 7.35	Quantity Drawn:4L	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500: 2012	
					Acceptable limit	Permissible limit
1	p ^H	---	7.34	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5	No relaxation
1	Turbidity	NTU	1.38	APHA 23 rd Edition,2130,Page:2-13	1.0	5.0
2	Total hardness	mg/L	162.4	APHA 23 rd Edition,2340 B,Page:2-48	200	600
3	Total Alkalinity	mg/L	344.5	APHA 23 rd Edition,2320 B,Page:2-37	200	600
4	Residual Chlorine	mg/L	<0.01	APHA 23 rd Edition,4500-Cl B,Page:4-63	0.2	1.0
5	Fluoride	mg/L	0.31	APHA 23 rd Edition,4500-F D,Page:4-90	1.0	1.5
6	Chloride	mg/L	14.7	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75	250	1000
7	Iron(as Fe)	mg/L	0.13	APHA 23 rd Edition,3500-Fe B,Page:3-80	0.3	No relaxation
8	Total coliform	MPN/100 ml	Nil	APHA 23 rd Edition,9222B,Page:9-81	Absent	Absent

For Envision Enviro Technologies North East

Rimpi Sarma
Environmental Chemist
Test Done By

Dr. Pranita Chakraborty
Quality Manager
Authorized Signatory

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End of report





NABL ACCREDITED

TEST REPORT:

Report No: 210706_1503163_0
 ULR NO-TC76692100000058P
 Sample ID No: EETNE/June/03/21/D
 Test Starting Date: 19/06/21

Date of Report: 06/07/21 Certificate No. TC-7669
 Date of sample receipt: 19/06/21
 Test completion Date: 02/07/21

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: RO Water	Source: Workman Camp				
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date	Time	Temperature	p ^H	Quantity Drawn:4L	Sampling Method:
	12/06/2021	11:40 A.M	30°C	7.18		EETNE/SOP/02

SI No.	Parameters	Unit	Result	Reference Method	IS 10500: 2012	
					Acceptable limit	Permissible limit
1	p ^H	---	7.16	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5	No relaxation
1	Turbidity	NTU	0.4	APHA 23 rd Edition,2130,Page:2-13	1.0	5.0
2	Total hardness	mg/L	159.6	APHA 23 rd Edition,2340 B,Page:2-48	200	600
3	Total Alkalinity	mg/L	310.5	APHA 23 rd Edition,2320 B,Page:2-37	200	600
4	Residual Chlorine	mg/L	<0.01	APHA 23 rd Edition,4500-Cl B,Page:4-63	0.2	1.0
5	Fluoride	mg/L	0.34	APHA 23 rd Edition,4500-F ⁻ D,Page:4-90	1.0	1.5
6	Chloride	mg/L	18.2	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75	250	1000
7	Iron(as Fe)	mg/L	0.12	APHA 23 rd Edition,3500-Fe B,Page:3-80	0.3	No relaxation
8	Total coliform	MPN/100 ml	Null	APHA 23 rd Edition,9222B,Page:9-81	Absent	Absent

For Envision Enviro Technologies North East

Rimpi Sarma
 Rimpi Sarma
 Environmental Chemist
 Test Done By

Dr. Pranika Chakraborty
 Dr. Pranika Chakraborty
 Quality Manager
 Authorized Signatory

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Technology for tomorrow

TEST REPORT:

Report No: 210706_1503163_0
ULR NO-TC76692100000063P
Sample ID No: EETNE/June/09/21/D
Test Starting Date: 19/06/21

Date of Report: 06/07/21
Date of sample receipt: 19/06/21
Test completion Date: 02/07/21
NABL ACCREDITED
Certificate No. TC-7669

Name & Address of Client	M/s. Lower Kopili Project. Near Lanka, Dist: Dima Hasao.					
Sample Description	Type: RO Water	Source: Mobarak Ansari Mess				
Sample collected by	Mr. Anandhapandi Jointly with PMC					
Sample Collection Particulars	Date 12/06/2021	Time 01:15 P.M	Temperature 31°C	p ^H 6.71	Quantity Drawn:4L	Sampling Method: EETNE/SOP/02

Sl No.	Parameters	Unit	Result	Reference Method	IS 10500: 2012	
					Acceptable limit	Permissible limit
1	p ^H	---	6.72	APHA 23 rd Edition,4500 H ⁺ ,Page:4-95	6.5-8.5	No relaxation
1	Turbidity	NTU	0.53	APHA 23 rd Edition,2130,Page:2-13	1.0	5.0
2	Total hardness	mg/L	25.2	APHA 23 rd Edition,2340 B,Page:2-48	200	600
3	Total Alkalinity	mg/L	85	APHA 23 rd Edition,2320 B,Page:2-37	200	600
4	Residual Chlorine	mg/L	<0.01	APHA 23 rd Edition,4500-Cl B,Page:4-63	0.2	1.0
5	Fluoride	mg/L	0.43	APHA 23 rd Edition,4500-F ⁻ D,Page:4-90	1.0	1.5
6	Chloride	mg/L	16.1	APHA 23 rd Edition,4500-Cl ⁻ B,Page:4-75	250	1000
7	Iron(as Fe)	mg/L	0.13	APHA 23 rd Edition,3500-Fe B,Page:3-80	0.3	No relaxation
8	Total coliform	MPN/100 mL	Nil	APHA 23 rd Edition,9222B,Page:9-81	Absent	Absent


For Envision Enviro Technologies North East

Rimpi Sarma
Environmental Chemist
Test Done By

Dr. Pranita Chakraborty
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End of report




GOVERNMENT OF ASSAM
OFFICE OF THE DISTRICT MAGISTRATE::KARBI ANGLONG DISTRICT::DIPHU

③
 AGM(C)PMU-LK
 Discussed
 ller
 22-11-19

104
 22/11/19

Tel No. (0361) 272251/272252 (R)
 Fax No. (0361) 272263
 E-mail : karbianglong@assam.nic.in
 PG-Diphu, PIN-782400

No.KADC/FR Act/2019/36
 Dated Diphu, the 29th Octoberth 2019

To,
 The Deputy Commissioner,
 Dist- West Karbi Anglong, Hamren.

Matter discussed with P3 (PMU),
 B. Hazarika, JMCL)
 Pl- file. *[Signature]*
 25/11/2019

Sub : Lower Kopili H.E. Project- Environment clearance regarding.

Ref : No.APGCL/CGM(H)/W/2007/140/Pt-VI/29, dated 15/10/2019

In inviting a reference to the subject cited above, I have the honour to forward herewith a copy of letter alongwith enclosures received vide letter no. as referred above from the Project Director, Lower Kopili H.E. Project, APGCL, Bijulee Bhawan, Paltanbazar, Guwahati which is self explanatory regarding disply of Environment Clearance on the Lower Kopili H.E. Project in the Office premises.

This is for favour of kind information and necessary action.

Yours faithfully,

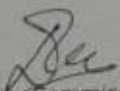
Enclo: As above- 10 (ten) sheets.

Addl. Deputy Commissioner,
 Karbi Anglong, Diphu.

Memo No.KADC/FR Act/2019/36-A
 Dated Diphu, the 29th Octoberth 2019

Copy to:

1. The Project Director, Lower Kopili H.E. Project, APGCL, Bijulee Bhawan, 3rd Floor, Paltanbazar, Guwahati-01 for information. As per your letter referred above, the same is displayed in the Notice Board of the Office premises of office of Deputy Commissioner, K/ Anglong, Diphu.
2. C.A. to D.C. for kind appraisal of the Deputy Commissioner, K/ Anglong, Diphu.


 Addl. Deputy Commissioner,
 Karbi Anglong, Diphu.



ASSAM POWER GENERATION CORPORATION LIMITED

NOTICE

It is hereby informed to the general public that Ministry of Environment, Forest and Climate Change, Govt. of India has accorded Environment Clearance for the Lower Kopili Hydro Electric Project (120 MW) in Dima Hasao District and Karbi Anglong districts of Assam vide letter No. J-12011/26/2012-IA-I dated 4th September, 2019.

The copy of the EC is available in APGCL website i.e. www.apgcl.org
Project Director (PMU), LKHEP, APGCL

EA/2019/99