

Environmental and Social Monitoring Report

Semi-Annual Report (July to December 2018)
May 2020

VIE: WATER SECTOR INVESTMENT PROGRAM – TRANCHE 3

**CUA LO TOWN WATER SUPPLY SYSTEM ENHANCEMENT AND
EXPANSION PROJECT, NGHE AN PROVINCE**

Prepared by Cua Lo Water Supply Joint Stock Company for the Provincial People's
Committee of Nghe An Province and the Asian Development Bank

**CUA LO TOWN WATER SUPPLY SYSTEM ENHANCEMENT AND
EXPANSION PROJECT, NGHE AN PROVINCE**

LOAN ADB No.3251-VIE

REPORT ON PERIODIC SOCIO-ENVIRONMENTAL MONITORING

Phase: from July 1st, 2018 to December 31st, 2018



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REPORT ON PERIODIC SOCIO-ENVIRONMENTAL MONITORING
Phase: from July 1st, 2018 to December 31st, 2018

CONTRACT NO: CL-CS 2
PACKAGE: CONSTRUCTION SUPERVISION
PROJECT: CUA LO WATER SUPPLY SYSTEM UPGRADING
AND EXPANDING PROJECT

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ABBREVIATIONS

ADB	Asian Development Bank
CEMP	Community Environmental Management Plan
CSC	Construction Supervision Consultants
EMC	Environmental Monitoring Consultant
EMP	Environmental Management Plan
SEMP	Site Environmental Management Plan
GAP	Gender Action Plan
GRM	Grievance Redress Mechanism
IEE	Initial Environmental Examination
JSC	Joint Stock Company
MONRE	Ministry of Natural Resources and Environment
PIC	Project Implementation Consultant
PPC	Provincial People's Committee
PMU	Project Management Unit
RP	Resettlement Plan

Table of Content

1	Introduction and Project Overview	1
2	Environmental Performance Monitoring	5
2.1.	Summary of Compliance with EMP Requirements (Environmental Performance).....	5
	Project Management Unit (PMU)	5
2.2.	Issues for Further Action	27
2.3.	Other activities (Environmental sampling).....	30
3	Occupational, Health and Safety (OHS) Performance Monitoring.....	37
3.1	OHS for worker	37
3.2	Public Safety.....	41
4	Information Disclosure and Socialization including Capability Building	43
5	Grievance Redress Mechanism	44
6	Resettlement, Social safeguards and Gender	45
6.1	Resettlement, Social safeguards	45
6.2	As for Gender	49
7	Conclusion.....	54

Figures

Figure 1. Project's General Layout.	4
Figure 2. Photos of Nghi Hoa Water Treatment Plant (taken in December 2018)	11
Figure 3. Photos of Pumping Station and Office Building (taken in December 2018).	18
Figure 4: Construction of distribution pipeline.	23
Figure 5: Sampling map	33

Table

Table 1: Project Overview, Snapshot of Project Progress	2
Table 2: Roles and Responsibilities on EMP	5
Table 3: Summary of Compliance with EMP Requirements (Environmental Performance) at Nghi Hoa Water Treatment Plant.....	11
Table 4: Summary of Compliance with EMP Requirements (Environmental Performance) at the Booster station and office site	18
Table 5: Issues for Further Action.....	27
Table 6: Environmental sampling plan during the Construction Phase	31
Table 7: Analysis results of the quality of air and noise (3 rd quarter of 2018).....	34
Table 8: Analysis results of the quality of air and noise – 4th quarter of 2018	34
Table 10: Measurement results of the vibration 4th quarter of 2018	35
Table 11. Analysis Results of surface water - 3rd quarter of 2018.....	36
Table 14: Issues on Public Safety	41
Table 15: Residents' Feedback on the Project	43
Table 16: Details of personnel in charge of GRM at the sites:	44
Table 17: Grievances Received.....	45
Table 18: Gender action plan	49

1 Introduction and Project Overview

1. Cua Lo Water Supply System Upgrading and Expanding project has a total project investment estimated about USD 16,096,000. Of which ADB loan is USD 13,190,000 and the counterpart fund of Nghe An Provincial People's Committee (PPC) is USD 2,906,000.

2. The Project comprises of 3 following components:

NA-CL-CW1 / ICB contract dated June 12, 2017 between Cua Lo Water Supply Joint Stock Company and Joint Venture of Ha Huy Joint Stock Company, Vietnam Water and Environment Investment Corporation-Vietnam Construction Joint Stock Company build number 12.

- Construction of Nghi Hoa water supply plant in Nghi Hoa commune, Nghi Loc district with capacity 10,000 m³/day connected with existing WTP capacity 3,000 m³/day to reach 13,000 m³/day in 2020. Raw water is taken from Phuong Tich river. Main categories of the project are: Intake works, reservoir, raw water pumping station, treatment plant, water tank, secondary pumping station, chemical room, sludge collection site, and auxiliary works;

Contractor: Ha Huy Joint Stock Company

Commander: Le Quoc Hung

Phone number: +84-979-874-402

Time to start construction: 12 July 2017

Construction completion time: 30 Dec, 2019

- Construction of pressure boost pumping station and office house in Nghi Huong ward, Cua Lo town consisting of water tanks, pumping station, office house, storage, guard-house, fence, etc.;

Contractor: Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN)

Commander: Tran Xuan Thai

Phone number: +84-985-112-169

Time to start construction: 12 July 2017

- Construction completion time: 30 Dec, 2019 Construction of transmission pipeline networks and distribution pipeline networks D110÷D450 with the total length of 52.6 km; service network D32÷D90 L= 241.8 km and 7,352 connection points to households. HDPE pipes will be used for the network.

Contractor: Vinaconex 12 Construction Company

Commander: Vu Anh Tuan

Phone number: +84-978-697-313

Time to start construction: 12 July 2017

3. Construction completion time: 30 Dec, 2019 Contract No. NA-CL-CS2 "Construction Supervision for Cua Lo Water Supply System Upgrading and Expanding project" was signed by and between Joint Venture of Viet Nam Water, Sanitation and Environment Joint Stock Company (JSC) and Meinhardt (Vietnam) Ltd. and the Cua Lo Water Supply JSC on 28 June 2016. The consultancy service package was officially commenced on 12 July 2017.

4. According to the contract documents, the construction supervision consultants as well as Cua Lo Water Supply JSC are responsible for monitoring the compliance of environmental and social safeguards during the project implementation. Specifically, the approved Environmental Management Plan (EMP), Resettlement Plan (RP), and Gender Action Plan (GAP) must be

complied throughout the project implementation. The progress of updating safeguard documents is as follow:

- Revised EMP was prepared and submitted to ADB on January 9, 2017. ADB had no objection this report on June 20, 2017.
- Resettlement Due Diligence Report for of the raw water intake and booster pumping station, rehabilitation and expansion of the WTP (Before loan fact finding mission - Since payments had already been made without an approved RP) was prepared and approved by ADB on 2014
- Resettlement Due Diligence Report for construction of transmission and distribution network was prepared and submitted to ADB on January 9, 2017. ADB had no objection this report on June 20, 2017.

5. This semi-annual monitoring report is to describe the periodically monitoring results on environmental and social safeguards implementation of the project during the second six-month period of 2018 (from July to December 2018).

6. The environmental and social safeguard monitoring by the Consultant is carried out in accordance with the following procedures:

- (i) Work closely with construction supervision consultants (CSC) to complete the log construction process (including the content of the EMP implementation), fill in the monthly monitoring forms;
- (ii) Access to and examine records relating to the compensation, site clearance and resettlement process of the project;
- (iii) Monthly site visit to construction locations of the project; Working with contractors, CSC to understand the progress of the construction and implementation of environmental and social safeguard policies;
- (iv) Directly interview with local households affected by the project construction.

Table 1: Project Overview, Snapshot of Project Progress

Project Number and Title:	Loan 3251-VIE -Water Sector Investment Program - Tranche 3 Cua lo Water Supply System Upgrading and Expanding project	
Safeguards Category	Environment	B
	Indigenous Peoples	C
	Involuntary Resettlement	B
Reporting period:	July – December 2018	
Last report date:	January – June 2018 (June 2018)	
Key project activities since last report:	<ul style="list-style-type: none"> - Nghi Hoa Water Plant: as of 31 December 2018, the progress rate is estimated at 73% - Pump booster station and office building: as of 31 December 2018, the progress rate is estimated at 55% - Transmission pipelines: as of 31 December 2018, the progress rate is estimated at 90% 	

	<ul style="list-style-type: none"> - Monitor the environment and promote the completion of occupational safety records for the last 6 months of 2018 of the project - Supervise the site clearance and resettlement of the project <ul style="list-style-type: none"> + Promoting the process of backlog, problems in land acquisition of 2 households in the office building and booster pumping station. Up to the time of making the monitoring report: The investor has prepared a written request for adjustment of detailed construction planning of 1/500 item of office and water plant in Cua Lo town in Nghi Huong ward, town. Cua Lo commune + Monitor the negotiation of compensation price for site clearance compensation of transmission pipeline item passing agricultural land of 61 households in Nghi Quang commune and Nghi Thu ward, Cua Lo town. By the time the monitoring report is prepared: completed.
Report prepared by:	Mr. Tran Phuc Thanh – Deputy Director of Project Management Unit (PMU)

2 Environmental Performance Monitoring

2.1. Summary of Compliance with EMP Requirements (Environmental Performance)

Table 2: Roles and Responsibilities on EMP

No.	Organization	Responsibilities	Status of Performance Compliance
1	Project Management Unit (PMU)	<p>For strict compliance with the Environment Management Plan, the PMU should supervise the contractors' undertaking of mitigation measures. With regards to environmental monitoring, the PMU's responsibilities are:</p> <ul style="list-style-type: none"> - Monitoring of environmental related performance indicators - Unscheduled site visit to ensure contractor's compliance to mitigation measures as specified in the contracts. - Review of CSC's periodic reports to ensure compliance to mitigation measures - Review of CSC's reports on general impacts of the project - Reporting to ADB and MONRE on environmental compliance based on CSC's reports, as part of semi-annual reporting duty to ADB - Close cooperation with stakeholders in charge of water supply, environmental sanitation, waste collection etc. to monitor the operation and maintenance during the operational phase. - Coordination of the resolution of public's grievances: Cua Lo PMU's Environmental-Social officer: Mr. Tri (Phone number : +84-916-104-668) 	<p>Being complied</p> <ul style="list-style-type: none"> + The form of monitoring of environmental performance indicators is done by the environmental officer of the PMU once a week. Forms are stored in labor safety and environmental records. + Mr. Tri will conduct field inspections once a week. + PMU always reviews the monthly / quarterly progress report of the Construction Supervision Consultant. Issues (if any) will be resolved at the beginning of the month meeting (Attached the minutes of the monthly meeting) + Every week, the Construction Supervision Consultant always reports to the PMU on the construction works that cause environmental impacts of the contractors. In order for PMU to solve this problem promptly. + The PMU submits a social environment monitoring report to ADB, every 6 months. + Complaints and grievances about the project will be summarized by Mr. Tri and reported to PMU's leaders (Cua Lo PMU's Environmental-Social officer: Mr. Tri mobile: +84-916-104-668)
2	Construction Supervision	Supervise construction activities; supervise technical standards and construction progress of contractors.	Being complied

	Consultant (CSC)	<p>For the environment, the CSC is responsible for supervising the implementation of mitigation measures of contractors according to the requirements in the EMP. This includes the following main tasks:</p> <ul style="list-style-type: none"> - Ensuring contractors and workers have been trained and instructed on environment and safety. - Ensuring that contractors assemble, maintain and clean machine or equipment daily and toilets, drainage system suitable for workers. - Ensuring that contractors have obtained all permissions on discharging wastewater and removing solid waste out of the construction sites. - Checking the safety conditions at the construction sites, such as internal roads, fences, warning signals, lights, electrical safety, and drainage system. - Conducting regular site inspections; conducting environmental effect monitoring in accordance with the monitoring plan cleared by ADB. 	<ul style="list-style-type: none"> + Each construction contractor always has 1 environmental officer and is fully trained in labor safety. The list of trained workers is updated in the contractor's occupational safety and environment profile. Records are kept at the construction office of the contractor. + In the Water Plant Office, Contractor Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) has set up a camp for workers meeting labor safety and hygiene standards. + In the Nghi Hoa water plant category: Contractor Ha Huy Joint Stock Company has rented a house next to the construction work as an office building for workers, on the site there is a portable toilet. + In the pipeline category: Contractor Vinaconex 12 Construction Company leases houses + Construction solid waste will be collected, transported and treated by Nghi Loc Green Environment JSC. + Supervision consultants always remind contractors about establishing safety conditions on site. However, at this stage, contractors did not seriously comply.
3	Environmental Monitoring Consultant (EMC)	<p>Responsibilities of environmental monitoring consultants include:</p> <ul style="list-style-type: none"> - Ensure that the EMP has been approved and that loan agreements related to environmental safety will be applied and followed throughout the project implementation process; - Ensure that environmental mitigation measures are established as required in project implementation aspects; - Evaluate the effectiveness of the mitigation measures applied by the contractor and CSC during the 	<ul style="list-style-type: none"> - Partly complied + Co-ordinate with the PMU and the construction supervision consultant to provide environmental management and minimize the impact necessary to the contractor; + Make a social environment monitoring report every 6 months. However, it has not been submitted to PMU and ADB on schedule.

	<p>implementation process, and make recommendations and recommendations to the PMU for the improvements or improvements needed to meet the requirements. safeguard;</p> <ul style="list-style-type: none"> - Report periodically to the PMU on the actual implementation of the EMP during the implementation of the project. In case of necessity, more detailed assessment and / or local consultation may be required to identify potential impact and mitigation measures; - Establish standard procedures, methods and forms to assist the PMU and CSC in assessing the Contractor's progress in implementing the necessary monitoring and mitigation measures; - Assist the project management board and its environmental staff to review and examine the detailed design and relevant parts of the Contract Document to ensure compliance with environmental protection and monitoring requirements and mitigation; - Organize regular, quarterly meetings with stakeholders (project management board, contractor, CSC, community representatives and other relevant authorities) to collect Contribute to the development and revision of the plan and strategy for environmental monitoring and overall environmental management. - Organizing the implementation of programs on measurement, sampling and monitoring of environmental norms periodically (every 3 months) during the period of performing the environmental supervision contract. - Develop training materials for specialized contents on environmental management and environmental monitoring to train contractors, construction supervision 	
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	<p>consultants and relevant staff of the PMU school and coordinator of the package) perform the task.</p> <ul style="list-style-type: none"> - Through the PMU discuss with relevant stakeholders (when necessary) in order to find appropriate solutions for arising problems related to environmental sanitation. - Through the guidance of the PMU, establish and maintain close coordination with the CSC to ensure that relevant environmental regulations, environmental monitoring and mitigation measures, The reporting procedure should be clearly understood and incorporated into the CSC work plan. These procedures also include the recommendation of appropriate sanctions and the procedure for recommending the suspension of construction work at the site once the construction contractor fails to comply with the requirements for environmental safeguards in the test. public; - Assist the CSC to prepare and implement emergency action plans where needed for environmental damage or problems encountered during construction; - Co-ordinate with the PMU and the construction supervision consultant to provide environmental management and minimize the impact necessary to the contractor; - Provide the necessary support to community representatives in the preparation and implementation of community-based environmental management plans. - Assist the PMU to establish and maintain an organizational structure for the environmental management system, monitoring and reporting obligations in coordination with the relevant local environmental management agencies; 	
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		<ul style="list-style-type: none"> - Provide support and assistance for environmental training and capacity building programs upon request; <p>Provides general guidance on the environment required by the PMU to enhance the overall effectiveness of project implementation.</p>	
4	Contractors	<ul style="list-style-type: none"> - Being obliged to undertake mitigation measures and comply with approved EMP throughout the construction of the project. - throughout the construction of the project, being subjected to the strict supervision of PMU, CSC and EMC, environmental agencies and local communities on EMP compliance 	<p>Partly complied</p> <p>Noncompliance includes:</p> <ul style="list-style-type: none"> + Inadequate PPE for workers + Construction waste on the construction site has not been gathered (at Nghi Hoa water plant site)

ADB = Asian Development Bank, CSC = construction supervision consultants, EMC = Environmental Monitoring Consultant, PMU = Project Management Unit, MONRE = Ministry of Natural Resources and Environment.

2.1.1. General evaluation of all site locations:

7. During the late 6-month period of 2018, the contractors basically complied with the Environmental Safeguard and Occupational Safety. The contractors implemented the environmental impact mitigation measures under the approved SEMP. The contractors also submitted quarterly environmental monitoring reports for Quarter III and IV of 2018.

8. Environmental and safety achieves

- There was no complaint on Environmental Safeguard and Occupational Safety.
- There is not any accident in the Quarter III & IV of 2018;
- The Contractor has complied with the environmental impact mitigation measures under the approved SEMP and Consultant's requirements.
- The Contractor performed well the construction method for installation of pipelines along traffic roads which do not affect to traffic.

2.1.2. Evaluation of Nghi Hoa water supply plant

9. During the late 6-month period of 2018, the contractor performed major activities, including: transporting construction materials, transporting machinery and equipment, building clean water treatment plant and plant landscape campus.

10. At the time of site visit (late December 2018), the site of Nghi Hoa water plant had been basically completed almost all construction activities. The remains were only (i) leveling materials for fences and reservoir's slopes have not yet been decided as till remaining comments from Nghe An Provincial Department of Construction, who do not agree with the solutions proposed by the project; (ii) As already mentioned in the previous six-month report, there are still eight (08) graves remaining onsite which have not been removed.

11. According to the assessment results of the monitoring team, due to the construction site is far from local residential areas (the nearest residential households is about from 400m from the construction site), and the construction site is surrounded by a 2m tall iron fence, the environmental impacts from construction activities on the local residents are relatively negligible.

12. The Construction site area is large. Construction materials are gathered neatly and safely. Transportation vehicles are cleaned up before going out the construction site. Traffic route used for material transportation is being watered daily.

13. The number of workers daily working on construction site varies from 20 to 40 persons. Those persons mainly are local people, owning house or renting in local houses near construction site, usually back to their home at the end of working day. Some security guards are arranged to stay overnight at the construction site.

14. Daily waste and construction waste on the site are collected, stored and transported in accordance with regulations.

- Domestic solid wastes: estimated an amount of 10÷20kg/day of domestic solid wastes generated within the construction site by the workers. The wastes include: waste foods and plastic packs/bags, paper... This waste amount is collected into a 100L plastic bin setup at the camp area. Dailly after working hours, the staffs of NghiLoc Green Environment JS Company come to collect and transport to the Solid Waste Treatment Complex located in Nghi Yen commune of Nghi Loc district.
- Construction solid wastes: about 15kg/day, included empty packs, waste wood, steel,... This waste amount is composed of inert and non-hazardous substances, some can be recycled or

reused for other purposes. The remains are to be collected within the site and transported and treated by the Nghi Loc Green Environment JSC.

15. As of the time of reporting, there has been no recorded complaint from local authorities and people on socio-environmental negative issues caused by the project.

16. Some issues those need to be improved for the construction site of Nghi Hoa water treatment plans are:

- Workers who are exposed to loud noise are not equipped with noise-canceling ear plugs;
- It is necessary to install sufficiently warning signs on the construction site;
- To regularly collect construction wastes;
- Some workers have been working without person protection equipment PPE (shoes, safety helmets), thus the Contractor should supervise and remind more regularly.

	
Construction of internal roads within Nghi Hoa water plant	
	
Construction of clean water treatment cluster	

Figure 2. Photos of Nghi Hoa Water Treatment Plant (taken in December 2018)

Table 3: Summary of Compliance with EMP Requirements (Environmental Performance) at Nghi Hoa Water Treatment Plant

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
1	Implementation arrangement		
1.1	Disseminate safety principles to workers	Yes	No
1.2	License	Yes	No
1.3	Equipping work safety clothing for workers	No (Some workers have been working without personal protection equipment PPE (shoes, safety helmets))	Contractor Ha Huy Joint Stock Company, It is necessary to install sufficiently warning signs on the construction site Corrective period: Immediately, after the construction site visit of social environmental monitoring consultants. December 11, 2018
1.4	First-aid kit at camps	Yes	No
1.6	Camp		
-	Clean water for workers	Yes	No
-	Sanitary and safe kitchen	Yes	No
-	Wastewater from camps is not stagnant	Yes	No
-	Self-decomposing latrines at camp	Yes	No
1.7	Mobilizing officers who are in charge of environmental safety to be at the site regularly to receive feedback from the community.	Yes	No
1.8	Project and contractor's signboard, (indicating name	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
	and phone number of site managers)		
1.9	Relationship between site manager and local authority	Yes	No
1.10	Relationship between site manager, workers and local people	Yes	No
2	Mitigation measures		
2.1	Minimizing dust/exhaust fumes		
-	Watering sprinkling at specific locations in the dry season.	Yes	No
-	Fence/temporary cover for areas near local residences	Yes	No
-	Clean mud, soil on truck's wheels.	Yes	No
-	Tilting trucks/ means of transportation.	Yes	No
-	Trucks carrying sand, soil, stone are not overloaded.	Yes (There is no evidence of load violation recorded so far)	No
-	Clean the site after construction	Yes	No
-	Trucks/machines are maintained regularly	Yes	No
-	Forbidding on-site waste incineration, waste is removed within 24h	Yes	No
-	Keeping hazardous waste away from local residence	Yes	No
2.2	Reduce noise/vibration		

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	Equip safety clothing for workers	No. (Workers exposed to loud noise were not equipped with noise-canceling ear plugs).	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Construction supervision consultant is responsible for supervising the contractor's compliance with measures. - The social environment monitoring consultant has instructed and informed the contractor's construction engineers & all workers to be equipped with noise-canceling earplugs whenever working near high noise sources. - Corrective period: Immediately Completion time: 11 th Dec, 2018
-	Avoid construction which causes big noise before 5A.M and after 10P.M.	Yes	No
-	Suitable construction measures, not causing ground settlement, break to houses and other constructions.	Yes	No
2.3	Mud from excavation, waste form house around.		
	Get agreement on area for discharging unused soil	Yes	No
-	Daily Collecting and discharging at yard agreed by locality.	Yes	No
-	Place dust bins at construction sites	Yes	No
-	Collecting waste and moved to agreed places, transported to and treated accordingly.	Yes	No
2.4	Pollution of surface water caused by construction		

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
	activities and camps of workers		
-	There is gutter collecting wastewater/stormwater at the site leading to the main sewer of the district	Yes	No
-	There is self-decomposing latrines at camp	Yes	No
-	Keeping hazardous waste away from water sources.	Yes	No
2.5	Risks of being flooded temporarily in raining season when drainage system has not been completed.		
-	Preparing plan for dealing with emergency flood	Yes	No
2.6	Impacts on transportation		
-	Place warning signs / instructions	No (Nghi Hoa clean water plant site has no warning signs for construction sites and speed limits)	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Construction supervisor is responsible for monitoring the remedial work - Corrective period: Immediately Completion time: 12 th Dec, 2018
-	Constructing temporary bypasses where needed.	The project does not require this activity	
2.7	Public safety and health		
-	There is regulations, and training for workers on the regulations and communication to community	Yes	No
-	Assemble and maintain instructions, signs warning at construction sites.	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
2.8	Impact on business/socio-economic activities.		
-	Clean construction site every day after construction implementation.	Yes	No
-	Recovering breakdown of electricity/water supply/communication due to construction implementation.	N/a (There have been no breakdown of electricity/water supply/communication due to construction implementation so far.)	No
2.9	Fire prevention		
-	There is fire regulations/plan	Yes	No
-	Equip fire equipment at warehouse.	Yes	No
2.10	Social evils		
-	There is construction regulations, such as curfew, alcohol and gambling prohibition	Yes	No

2.1.3. Evaluation of the Pumping station and Office building:

17. Construction site located near traffic road with low-density traffic. Construction activities carried out within site's fence. There are no households located around the site. Thus, socio-environmental impacts affecting local people are assessed as low or insignificant.

18. Construction activities are happened only within the site area. The construction site area is large. Construction materials are gathered neatly and safely.

19. The number of workers daily working on construction site varies from 20 to 40 persons. Those persons mainly are local people, own houses or rented houses near construction site, usually back to their home at the end of working day. Some security guards are arranged to stay overnight at construction site.

20. Daily waste and construction waste on the site are collected, stored and transported in accordance with regulations. Specifically,

- Domestic solid wastes: estimated an amount of 10÷20kg/day of domestic solid wastes generated within the construction site by the workers. The wastes include: waste foods and

plastic packs/bags, paper... This waste amount is collected into a 100L plastic bin setup at the camp area. Daily after working hours, the staffs of Nghi Loc Green Environment JS Company come to collect and transport to the Solid Waste Treatment Complex located in Nghi Yen commune of Nghi Loc district.

- Construction solid wastes: about 15kg/day, included empty packs, waste wood, steel,... This waste amount is composed of inert and non-hazardous substances, some can be recycled or reused for other purposes. The remains are to be collected within the site and transported and treated by the Nghi Loc Green Environment JS Company.

21. As of the time of reporting, there have been no recorded complaints from local authorities and people on socio-environmental negative issues caused by the project.

22. Some issues those need to be improved for the construction site of pumping station and office building are:

- It is necessary to install sufficiently safety warning signs on the construction site;
- The contractor is required to spray water onsite more regularly to reduce dust dispersion when windy weather;
- Some workers have been working without person protection equipment PPE (shoes, safety helmets), thus the contractor should supervise and remind more regularly.



Construction of drainage system at the booster pump station (the construction site is located within the surrounding fence of the whole site area, the local people could not access to the construction site, thus an additional guarding fence is no longer necessary. The water in the dug pit was shallow groundwater)



Execute clean water tank cover at booster pump station

Figure 3. Photos of Pumping Station and Office Building (taken in December 2018).

Table 4: Summary of Compliance with EMP Requirements (Environmental Performance) at the Booster station and office site

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
1	Implementation arrangement		
1.1	Disseminate safety principles to workers	Yes	No
1.2	License	Yes	No
1.3	Equipping work safety clothing for workers	Yes	No
1.4	First-aid kit at camps	Yes	No
1.5	Periodical health check for workers	Yes	No
1.6	Camp		
-	Clean water for workers	Yes	No
-	Sanitary and safe kitchen	Yes	No
-	Wastewater from camps is not stagnant	Yes	No
-	Self-decomposing latrines at camp	Yes	No
1.7	Mobilizing officers who are in charge of environmental safety to be at the site regularly to receive feedback from the community	Yes	No
1.8	Project and contractor's signboard, (indicating name and phone number of site managers)	Yes	No
1.9	Relationship between site manager and local authority	Yes	No
1.10	Relationship between site manager, workers and local people	Yes	No
2	Mitigation measures	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
2.1	Minimizing dust/exhaust fumes		
-	Watering sprinkling at specific locations in dry season.	<p>Yes Excavated material (fine sand) was found very dry which leads to high risk of dust dispersion when windy weather.</p> <p>The Contractor is required to water daily (when the weather is dry) on site to maintain reasonable humidity to reduce dust dispersion.</p> <p>Construction supervision is responsible for monitoring</p> <p>Time to complete the monitoring: Until construction is completed</p> <p>Watering 2 times / day</p>	No
-	Fence/temporary cover for areas near local residences	Yes	No
-	Clean mud, soil on truck's wheels.	Yes	No
-	Tilting trucks/ means of transportation.	Yes	No
-	Clean the site after construction	Yes	No
-	Trucks/machines are maintained regularly	Yes	No
-	Forbidding on-site waste incineration, waste is removed within 24h	Yes	No
-	Keeping hazardous waste away from local residence	Yes	No
2.2	Reduce noise/vibration	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	Equip safety clothing for workers		
-	Avoid construction which causes big noise before 5A.M and after 10P.M.	Yes	No
-	Suitable construction measures, not causing ground settlement, break to houses and other constructions.	Yes	No
2.3	Mud from excavation, waste form house around.		
-	Get agreement on area for discharging unused soil	Yes. Excavated materials are used to refill onsite.	No
-	Daily Collecting and discharging at yard agreed by locality.	Yes	No
-	Place dust bins at construction sites	Yes	No
-	Collecting waste and moved to agreed places, transported to and treated accordingly.	Yes	No
2.4	Pollution of surface water caused by construction activities and camps of workers	Yes	No
-	There is gutter collecting wastewater/stormwater at the site leading to the main sewer of the district	No (Domestic wastewater has been directly discharged to the soil within the project site)	<ul style="list-style-type: none"> - PMU requires construction contractors to make settling pits to treat daily-life waste water on site. - Construction supervisor is responsible for monitoring the remedial work - Correction period: 1 day; 11th Dec, 2018

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	There is self-decomposing latrines at camp	Yes	No
-	Keeping hazardous waste away from water sources.	Yes	No
2.5	Risks of being flooded temporarily in raining season when drainage system has not been completed.		
-	Preparing plan for dealing with emergency flood	Yes	No
2.6	Impacts on transportation		
-	Place warning signs / instructions	No	<p>Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN)</p> <p>Construction contractors should place additional speed limit signs at the site gates to ensure safe traffic</p> <p>Construction supervisor is responsible for monitoring the remedial work</p> <p>Corrective period: immediately ; 11th Dec, 2018.</p>
-	Constructing temporary bypasses where needed.	The project does not require this activity	
-	Trucks carrying materials/wastes are not overloaded	Yes	No
2.7	Public safety and health		

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	There is regulations, and training for workers on the regulations and communication to community	Yes	No
-	Assemble and maintain instructions, signs warning at construction sites.	Yes	No
2.8	Impact on business/socio-economic activities.	Yes	No
-	Clean construction site every day after construction implementation.	Yes	No
-	Recovering breakdown of electricity/water supply/communication due to construction implementation.	Yes	No
2.9	Fire prevention		
-	There is fire regulations/plan	Yes	No
-	Equip fire equipment at warehouse.	Yes	No
2.10	Social evils		
-	There is construction regulations, such as curfew, alcohol and gambling prohibition	Yes	No

2.1.4. Assessment for transmission pipelines

23. The construction and installation of water pipelines along the roads was carried out by rolling, completing and returning the road immediately after the completion of each short section. Plumbing materials and building materials are neatly assembled, safe in the location of the land on both sides of the road.

24. Since the pipelines are all relatively small, the construction and installation were implemented by rolling, completing and returning the road immediately after the completion of each short section, pipe materials had been arranged tidily along the road sides waiting for the installation, thus the impacts on transportation have been mitigated sufficiently.

25. Construction transmission pipeline has progressed, the contractor has enlisted to have the construction site right there, but now there are two issues still exist:

- A segment of transmission pipeline D355 with length of 1.1 km without construction land is still delayed due to impacts from rehabilitation works of National Road No. 48E.
- A segment of transmission pipeline D600 crossing Phuong Tich Bridge has very slow progress which is committed by the Constructor to complete before Lunar New Year 2019.

	
Construction of distribution pipeline	Construction of transmission line via railway
	
Construction of transmission pipelines	

Figure 4: Construction of distribution pipeline.

Table 5: Summary of Compliance with EMP Requirements (Environmental Performance) for transmission pipelines

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
1	Implementation arrangement		
1.1	Disseminate safety principles to workers	Yes	No
1.2	License	Yes	No
1.3	Equipping work safety clothing for workers	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
1.4	First-aid kit at camps	Yes	No
1.5	Periodical health check for workers	Yes	No
1.6	Camp		
-	Clean water for workers	Yes	No
-	Sanitary and safe kitchen	Yes	No
-	Wastewater from camps is not stagnant	Yes	No
-	Self-decomposing latrines at camp	Yes	No
1.7	Mobilizing officers who are in charge of environmental safety to be at the site regularly to receive feedback from the community	Yes	No
1.8	Project and contractor's signboard, (indicating name and phone number of site managers)	Yes	No
1.9	Relationship between site manager and local authority	Yes	No
1.10	Relationship between site manager, workers and local people	Yes	No
2	Mitigation measures	Yes	No
2.1	Minimizing dust/exhaust fumes		
-	Watering sprinkling at specific locations in dry season.	Yes	No
-	Fence/temporary cover for areas near local residences	Yes	No
-	Clean mud, soil on truck's wheels.	Yes	No
-	Tilting trucks/ means of transportation.	Yes	No
-	Clean the site after construction	Yes	No
-	Trucks/machines are maintained regularly	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	Forbidding on-site waste incineration, waste is removed within 24h	Yes	No
-	Keeping hazardous waste away from local residence	Yes	No
2.2	Reduce noise/vibration	Yes	No
-	Equip safety clothing for workers		
-	Avoid construction which causes big noise before 5A.M and after 10P.M.	Yes	No
-	Suitable construction measures, not causing ground settlement, break to houses and other constructions.	Yes	No
2.3	Mud from excavation, waste form house around.		
-	Get agreement on area for discharging unused soil	Yes	No
-	Daily Collecting and discharging at yard agreed by locality.	Yes	No
-	Place dust bins at construction sites	Yes	No
-	Collecting waste and moved to agreed places, transported to and treated accordingly.	Yes	No
2.4	Pollution of surface water caused by construction activities and camps of workers	Yes	No
-	There is gutter collecting wastewater/stormwater at the site leading to the main sewer of the district	Yes	No
-	There is seft-decomposing latrines at camp	Yes	No
-	Keeping hazardous waste away from water sources.	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
2.5	Risks of being flooded temporarily in raining season when drainage system has not been completed.		
-	Preparing plan for dealing with emergency flood	Yes	No
2.6	Impacts on transportation		
-	Place warning signs / instructions	Yes	No
-	Constructing temporary bypasses where needed.	The project does not require this activity	
-	Trucks carrying materials/wastes are not overloaded	Yes	No
2.7	Public safety and health		
-	There is regulations, and training for workers on the regulations and communication to community	Yes	No
-	Assemble and maintain instructions, signs warning at construction sites.	Yes	No
2.8	Impact on business/socio-economic activities.	Yes	No
-	Clean construction site every day after construction implementation.	Yes	No
-	Recovering breakdown of electricity/water supply/communication due to construction implementation.	Yes	No
2.9	Fire prevention		
-	There is fire regulations/plan	Yes	No
-	Equip fire equipment at warehouse.	Yes	No
2.10	Social evils		
-	There is construction regulations, such as curfew, alcohol and gambling prohibition	Yes	No

2.2. Issues for Further Action

Table 6: Issues for Further Action

Issue	Required Action	Responsibility and Timing	Resolution
Old Issues from Previous Reports			
Nghi Hoa Water Treatment Plant Site			
Equip safety clothing for workers: Workers who were exposed to loud noise are not equipped with noise-canceling ear plugs.	Providing noise-canceling ear plugs for workers who are exposed to loud noise.	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Construction supervision should require the contractor to provide noise-proof earplugs to workers exposed to loud noise. - Corrective period: 1 week after environmental monitoring - Completion time: Non-complied 	This issue was also mentioned in the previous six-month report, the contractor was reminded onsite and committed to strictly comply. However, it had not yet been solved.
Pump Station and Office Building Site			
Watering sprinkling at specific locations in dry season.	The contractor is requested to water daily (when dry weather) on the construction site to keep a reasonable humidity to reduce dust dispersion	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Corrective period: Daily, when dry weather. - Completion time: Non-complied 	The contractor was reminded onsite and committed to strictly comply in the previous monitoring stage. However, it had not yet been solved till this monitoring stage.
There is gutter collecting wastewater/stormwater at the site leading to the main sewer of the district	<ul style="list-style-type: none"> - Do not connect to the common drainage system. Should the environmental monitoring consultant have asked the construction contractor to follow the 	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Corrective period: Immediately - Completion time: Non-complied 	The contractor was reminded onsite and committed to strictly comply in the previous monitoring stage. However, it had not yet

Issue	Required Action	Responsibility and Timing	Resolution
	<p>guidelines in the EMP to make a living sewage pit on the site.</p> <ul style="list-style-type: none"> - Time saved 5 days before spilling into the environment 		been solved till this monitoring stage.
Transmission pipelines			
none	-	-	-
New Issues from This Report			
Nghi Hoa Water Treatment Plant Site			
Workers who are exposed to loud noise are not equipped with noise-canceling ear plugs.	Providing noise-canceling ear plugs for workers who are exposed to loud noise	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Construction supervision consultant is responsible for supervising the contractor's compliance with measures. - The social environment monitoring consultant has instructed and informed the contractor's construction engineers & all workers to be equipped with noise-canceling earplugs whenever working near high noise sources. - Corrective period: Immediately - Completion time: 11th Dec, 2018 	
Safety warning signs on the construction site were not installed sufficiently	It is necessary to install sufficiently warning signs on the construction site	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Construction supervisor is responsible for monitoring the remedial work - Corrective period: Immediately - Completion time: 12th Dec, 2018 	
Some workers have been working without person protection equipment	The contractor should internally supervise and remind their	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company 	

Issue	Required Action	Responsibility and Timing	Resolution
PPE (shoes, safety helmets)	workers more regularly	<ul style="list-style-type: none"> - Construction supervisor is responsible for monitoring the remedial work - Corrective period: immediately; 11th Dec, 2018 	
Onsite collection of construction wastes was not implemented well (only a minor issue)	Workers need to regularly collect and gather construction waste in the right place after each construction day	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Corrective period: Completion time: As soon as possible when any construction wastes generated onsite. 	
Pump Station and Office Building Site			
Watering sprinkling at specific locations in dry season.	<ul style="list-style-type: none"> - The contractor is requested to water daily (when dry weather) on the construction site to keep a reasonable humidity to reduce dust dispersion - The contractor has injected irrigation water on site. - Watering 2 times / day 	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Corrective period: Daily, when dry weather. - Completion time: being complied with in the last 6 months of 2018 	-
Some workers have been working without person protection equipment PPE (shoes, safety helmets)	The contractor should internally supervise and remind their workers more regularly	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Construction supervisor is responsible for monitoring the remedial work - Corrective period: immediately - Completion time: 11th Dec, 2018 	

Issue	Required Action	Responsibility and Timing	Resolution
Excavated material (fine sand) was found very dry which leads to high risk of dust dispersion when windy weather	The contractor is required to spray water onsite more regularly to reduce dust dispersion when windy weather	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Construction supervisor is responsible for monitoring the remedial work - Corrective period: Daily, when dry weather. - Completion time: Being complied 	
Safety warning signs on the construction site were not installed sufficiently	It is necessary to install adequate warning signs on the construction site to ensure traffic safety	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Construction supervisor is responsible for monitoring the remedial work - Corrective period: Immediately - Completion time: 11th Dec, 2018 	
Domestic wastewater has been directly discharged to the soil within the project site	The Contractor is required to immediately collect domestic waste water into the self-absorbing pit	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Construction supervisor is responsible for monitoring the remedial work - Corrective period: 1 day - Completion time: 11th Dec, 2018 	
Transmission pipelines			
none	-	-	-

2.3. Other activities (Environmental sampling)

26. According to the periodic environmental monitoring program complying with the law, Cua Lo Water Supply JSC has cooperated with the Consulting Unit - VINAGREEN Environment and Investment Consultant JSC and Thai Duong Environmental Treatment and Monitoring JSC to sample, measure, analyze and make the reports at the site for quarter III&IV of 2018 of Cua Lo Water Supply System Upgrading and Expanding Project.

27. The periodic environmental monitoring will provide an overall assessment of the environmental quality at the project area, assessments of the environmental quality of the site to meet the requirements by the competent state authority for timely warning of unusual developments or pollution risks, and provide a basis for monitoring the environmental changes of the project, helping the project owner and the authorities have measures to prevent and actively cope with environmental problems that may occur during the construction process.

2.3.1. ADB approved sampling plan

28. Table 7 shows the environmental effect monitoring plan in the IEE¹ approved by ADB.

Table 7: Environmental sampling plan during the Construction Phase

Mitigation Measures	Monitoring parameters	Location	Method	Frequency
Monitoring of suspended dust and noxious fumes	Dust, CO, NOx, SOx, wind,	<ul style="list-style-type: none"> - 1 point in Nghi Hoa WTP - 1 point in Booster pumping station (near Sao Nam road) - 1 point in Nguyen Hue road. - 1 point in Mai Thuc Loan road - 1 point in Nguyen Sinh Cung road - 2 point in network pipelines (Binh Minh road). 	Take air sample for analysis and compare the result with related Vietnam Standards QCVN 05:2015/BTNMT	Every quarter in 18 months
Monitoring of noise	Leq, L50 and Lmax	As the same ambient air monitoring locations as above	Measure at site and compare the results with relevant standards (QCVN 26: 2010)	Every quarter in 18 months
Monitoring of vibration	Acceleration Speed Frequency	<ul style="list-style-type: none"> - 1 point in Phuong Tich Bridge (Transmission pipelines) - 1 point in Rao Truong Bridge (Transmission pipelines) - 1 point in Sao Nam Road (distribution pipelines) 	Measure at site and compare the results with relevant standards (QCVN 27: 2010)	Every quarter in 18 months

¹<https://www.adb.org/projects/documents/viet-nam-water-sector-investment-program-cua-lo-ws-iec>

Mitigation Measures	Monitoring parameters	Location	Method	Frequency
		- 1 point in Binh Minh Road (distribution pipelines)		
Surface water quality	pH, TSS, DO, COD, BOD5, ammonium (NH ₄) by N, nitrite, nitrate (NO ₃ ⁻), Phosphate, Floating oil, Coliform	<ul style="list-style-type: none"> - 02 points in Phuong Tich River - 01 point in Rao Truong River; - 01 point in Cam River; - 02 points in pond in Cua Lo Town (01 point in pond Nghi Khanh commune; 01 point in pond Nghi Huong Ward) 	Take water sample for analysis and compare result with related Vietnam Standards (QCVN 08-mt:2015/BTNM T; QCVN 40:2011/BTNM T)	Every quarter in 18 months

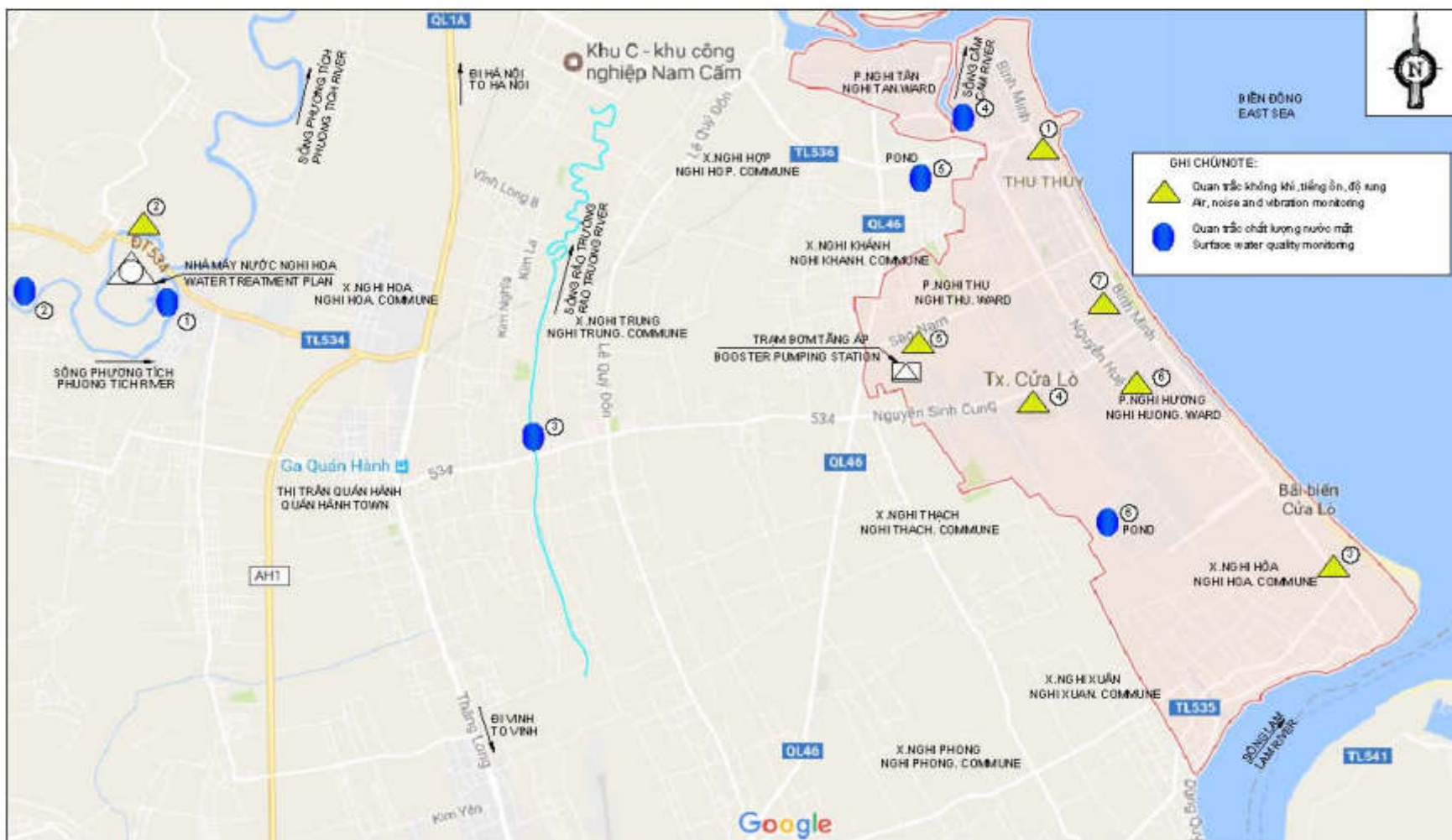


Figure 5: Sampling map

2.3.2. Environmental Quality Analytical Results

a) Results of air analysis

Table 8: Analysis results of the quality of air and noise (3rd quarter of 2018)

No	Parameter	Unit	Result							GHCP (allowable limit)
			KK1	KK2	KK3	KK4	KK5	KK6	KK7	
1	Temperature	°C	30	30,8	30,5	31	30,6	30	30,2	-
2	Humidity	%	75	78	72	77	79	79,2	78,5	-
3	Atmospheric pressure	atm	554	582	575	566	572	574	560	-
4	Speed of winds	m/s	0,5	0,4	0,4	0,55	0,6	0,52	0,5	-
5	Wind direction	-	ĐN	ĐN	ĐN	ĐN	ĐN	ĐN	ĐN	-
6	Dust	µg/m ³	202	188	181	207	191	184	180	300
7	CO	µg/m ³	3980	4122	3914	3910	3944	3878	3820	30.000
8	SO ₂	µg/m ³	192	181	187	208	191	178	182	350
9	NO ₂	µg/m ³	162	151	174	142	159	127	133	200
10	Noise	dBA	65	67	62	62	63	66	64	70^(*)

(Source: Analytical center and environmental geodesic Phuong Nam, September 2018)

Table 9: Analysis results of the quality of air and noise – 4th quarter of 2018

No	Parameter	Unit	Results							GHCP (allowable limit)
			KK1	KK2	KK3	KK4	KK5	KK6	KK7	
1	Temperature	°C	24	25	25	25	25.2	24.4	24	-
2	Humidity	%	88	86	86	82	85	79	81	-
3	Atmospheric pressure	atm	525	508	554	505	528	534	517	-
4	Speed of winds	m/s	3,5	3.8	4.2	2,5	2,8	3,2	2,7	-
5	Wind direction	-	ĐB	ĐB	ĐB	ĐB	ĐB	ĐB	ĐB	-
6	Dust	µg/m ³	182	165	168	171	165	182	172	300
7	CO	µg/m ³	3720	3880	3650	3550	3720	3775	3844	30.000

8	SO ₂	µg/m ³	202	178	191	221	181	191	167	350
9	NO ₂	µg/m ³	155	142	157	148	150	132	115	200
10	Noise	dBA	66	62	61	64	62	61	66	70(*)

(Source: Phuong Nam Environmental Analytical and Measuring Center, November 2018)

Notes:

GHCP (allowable limit): NTR 05:2013/MONRE: National Technical Regulation about the ambient air quality.

(*): NTR 26:2015/BTNMT: National Technical Regulation about the noise.

- + KK1: At Nguyen Sinh Cung street, coordinates X: 2078456; Y: 601044.
- + KK2: At Nguyen Hue Street, coordinates X: 2079042; Y: 602877;
- + KK3: At the area of Mai Thuc Loan Street, coordinates X: 2079131; Y: 602965;
- + KK4: At Binh Minh street (opposite Ban Toi hotel), coordinates: X: 2078428 ; Y: 601032;
- + KK5: At Binh Minh street (opposite Saigon - Kim Lien hotel), coordinate X: 2079017; Y: 602885;
- + KK6: At the booterpuming station, near Sao Nam street, coordinates X: 2078904; Y: 600476;
- + KK7: At Nghi Hoa water treatment plant, coordinates X: 2080285; Y: 591345.

29. **Comments:** The obtained analytical results of air quality and noise level in the project area(the 3rd and 4th quarters of 2018) show that: all the monitored parameters of air quality were meeting the allowable limits in accordance with QCVN 05: 2013/BTNMT - National technical regulations on ambient air quality. The monitored noise levels at 7 monitoring points were meeting the allowable limit in accordance with QCVN 26: 2010 / BTNMT - National technical regulation on noise.

b) Vibration

Table 10: Measurement results of the vibration– 3rd quarter of 2018

No	Parameter	Unit	Results				GHCP(allowable limit)
			R1	R2	R3	R4	
1	Vibration	dB	71	70	66	68	75

(Source: Phuong Nam Environmental Analytical and Measuring Center, September, 2018)

Table 11: Measurement results of the vibration4th quarter of 2018

No	Parameter	Unit	Results				GHCP (allowable limit)
			R1	R2	R3	R4	
1	Vibration	dB	70	72	68	69	75

(Source: Phuong Nam Environmental Analytical and Measuring Center, November, 2018)

Notes:

GHCP: QCVN 27:2010/BTNMT: National Technical Regulation about the vibration.

- + R1: At Phuong Tich bridge (transmission pipeline), coordinates: X: 2078017; Y: 591456;

- + R1: At Rao Truong Bridge (transmission pipeline), coordinates: X: 2077846; Y: 595972;
- + R3: At Sao Nam street (distribution pipeline), coordinates: X: 2080282; Y: 591340;
- + R4: At Binh Minh street (distribution pipeline), coordinates: X: 2079230; Y: 603300;

30. **Comments:** The obtained analytical results of vibration level in the project areas show that: vibration levels in the project areas were meeting the allowable limits in accordance with QCVN 27:2010/BTNMT: National Technical Regulation about the vibration.

c) Analysis Results of surface water.

Table 12. Analysis Results of surface water - 3rd quarter of 2018

No	Parameter	Unit	Results						GHCP(allowable limit)
			NM1	NM2	NM3	NM4	NM5	NM6	
1	PH	-	7,2	7,1	7,4	7,5	7,2	7,6	5,5-9
2	DO	mg/l	5,8	5,5	4,75	4,7	5,2	4,9	≥ 4
3	COD	mg/l	28,5	27,2	22,7	26,8	24,5	25,5	30
4	BOD ₅ (20°C)	mg/l	13,7	11,2	13,4	14,1	13,8	12,2	15
5	TSS	mg/l	47,2	44,6	44,9	46,3	44,8	46,7	50
6	NH ₄ ⁺	mg/l	0,45	0,53	0,61	0,51	0,48	0,55	0,9
7	NO ₃ ⁻	mg/l	4,7	5,5	5,91	5,5	4,8	4,2	10
8	NO ₂ ⁻	mg/l	0,017	0,031	0,046	0,032	0,028	0,037	0,05
9	PO ₄ ³⁻	mg/l	0,12	0,15	0,24	0,22	0,16	0,19	0,3
10	Grease	mg/l	0,7	0,64	0,72	0,61	0,68	0,54	1
11	Coliform	MPN/100 mml	4.900	4700	4700	4.900	4500	4800	7500

(Source: Phuong Nam Environmental Analytical and Measuring Center, September, 2018)

Table 13: Analysis Results of surface water– 4th quarter of 2018

No	Parameter	Unit	Results						GHCP(allowable limit)
			NM1	NM2	NM3	NM4	NM5	NM6	
1	PH	-	7,5	7,4	7,2	7,4	7,6	7,5	5,5-9
2	DO	mg/l	6,2	5,8	5,5	4,2	5,7	4,5	≥ 4
3	COD	mg/l	22,5	25,8	24,2	21,2	27,5	24,5	30
4	BOD ₅ (20°C)	mg/l	12,8	14,4	11,7	12,1	13,4	13,9	15

5	TSS	mg/l	42,5	38,2	44,4	41,4	38,4	48,2	50
6	NH ₄ ⁺	mg/l	0,52	0,58	0,46	0,41	0,59	0,5	0,9
7	NO ₃ ⁻	mg/l	6,2	6,8	5,5	6,9	4,4	4,8	10
8	NO ₂ ⁻	mg/l	0,025	0,047	0,021	0,039	0,031	0,045	0,05
9	PO ₄ ³⁻	mg/l	0,18	0,11	0,24	0,27	0,12	0,22	0,3
10	Grease	mg/l	0,55	0,52	0,77	0,77	0,57	0,61	1
11	Coliform	MPN/100 mml	4.800	4900	4900	5.200	4.900	4.700	7500

(Source: *Phuong Nam Environmental Analytical and Measuring Center, November, 2018*)

Notes:

GHCP: QCVN 08-MT:2015/BTNMT: National technical regulation about the surface water quality.

- + NM1: At *Phuong Tich* bridge (the first point), coordinates: X: 2078175; Y: 591458;
- + NM2: At *Phuong Tich* bridge (the second point), coordinates: X: 2079981; Y: 591657;
- + NM3: Surface water on *Rao Truong* River (near *Nhon* Bridge), coordinates: X: 2077848; Y: 595975;
- + NM4: On *Cam* River, coordinates: X: 2085180; Y: 594907;
- + NM5: Surface water on ponds in *Nghi Huong* ward, coordinates: X: 2078967; Y: 602631;
- + NM6: Surface water on ponds in *Nghi Khanh* commune, coordinates: X: 2080250; Y: 599570;

31. **Comments:** Through the measurement and analysis of 6 surface water samples in the project area, it is shown that the monitoring parameters in the last 6 months of 2018 are within the permitted limits in QCVN 08-MT: 2015 / BTNMT (column B1).

3 Occupational, Health and Safety (OHS) Performance Monitoring

3.1 OHS for worker

32. The contractor has equipped medical cabinets and protective equipment for workers fully. The health of workers and workers on the site is generally good.

Table 14: Issues on OHS for worker

Issue	Required Action	Responsibility and Timing	Resolution
Old Issues from Previous Reports			
Nghi Hoa Water Treatment Plant Site			
Workers who are exposed to loud noise were not equipped with noise-canceling ear plugs	Ask the contractor to provide noise-proof earplugs for workers exposed to loud noise.	<ul style="list-style-type: none"> - Implementation responsibilities: Ha Huy Joint Stock Company - Implementation time: from 1st January 2018 to 31st June, 2018 - Site engineers of the contractor were informed and guided about the issue. All workers must be equipped with noise-canceling ear plugs whenever working near high noise level sources. 	<ul style="list-style-type: none"> - Construction supervision consultants are responsible for urging contractors to comply with the implementation of mitigation measures - The project's social environment monitoring consultant mentioned this issue in the previous six-month report, the contractor was reminded on site and committed to strict compliance. However, from the then until December 10, 2018 this issue has not been resolved.
Pump Station and Office Building Site			
none		-	-
Transmission pipelines			
none		-	-
New Issues from This Report			
Nghi Hoa Water Treatment Plant Site			

Workers who were exposed to loud noise are not equipped with noise-canceling ear plugs	Providing noise-canceling ear plugs for workers who are exposed to loud noise.	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Compliance from 11th Dec, 2018 - Construction supervision consultants are responsible for supervising the implementation of mitigation measures. - Social environment monitoring consultant reminded and instructed the construction site engineers, all workers must be equipped with noise-proof earplugs whenever working near sources of high noise. - Environmental monitoring consultant is responsible for updating the situation in monthly reports and next quarterly reports. 	-
Safety signs on the construction site are not fully installed	It is necessary to install sufficiently warning signs on the construction site	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Implementation time: Immediately, from 11th – 12th Dec, 2018 - Construction supervision consultants are responsible for supervising the implementation of mitigation measures. - Environmental monitoring consultant is responsible for updating the situation in monthly reports and next quarterly reports. 	-

Some workers worked without PPE protective equipment: shoes, helmets, etc.	The contractor should internally supervise and remind their workers more regularly	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Implementation time: Immediately, from 11th to 12th Dec, 2018 - Construction supervision consultants are responsible for supervising the implementation of mitigation measures. - Environmental monitoring consultant is responsible for updating the situation in monthly reports and next quarterly reports. 	-
Pump Station and Office Building Site			
Safety signs on the construction site are not fully installed	It is necessary to install sufficiently warning signs on the construction site	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Implementation time: Immediately, from 11th – 12th Dec, 2018 - Construction supervision consultants are responsible for supervising the implementation of mitigation measures. - Environmental monitoring consultant is responsible for updating the situation in monthly reports and next quarterly reports. 	<ul style="list-style-type: none"> - Safety signs on the construction site are not fully installed in 2 work items: Nghi Hoa water plant and Office, Nghi Huong booster pumping station.

Some workers worked without PPE protective equipment: shoes, helmets, etc.	The contractor should internally supervise and remind their workers more regularly	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Implementation time: Immediately, from 11th to 12th Dec, 2018 - Construction supervision consultants are responsible for supervising the implementation of mitigation measures. - Environmental monitoring consultant is responsible for updating the situation in monthly reports and next quarterly reports. 	<ul style="list-style-type: none"> - Some workers worked without PPE protective equipment: shoes, helmets, etc. in 2 work items: Water Plant and Office of Nghi Hoa, Nghi Huong booster pumping station.
Transmission pipelines			
none		-	-

3.2 Public Safety

Table 15: Issues on Public Safety

Issue	Required Action	Responsibility and Timing	Resolution
Old Issues from Previous Reports			
Nghi Hoa Water Treatment Plant Site			
Watering sprinkling at specific locations in dry season.	The contractor is requested to water daily (when dry weather) on the construction site to keep a reasonable humidity to reduce dust dispersion Sprinklers. 2 times / day	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor Ha Huy Joint Stock Company - Implementation time: Daily, when dry weather, from 1st January 2018 to 31st June, 2018 	<ul style="list-style-type: none"> - Construction supervision consultant: The contractor has been reminded on the spot and committed to strict compliance during the previous supervision period. However, it was not resolved until 14th Dec , 2018. - Social environment monitoring consultant: is responsible for updating the situation in the monthly report / next quarterly report.
Pump Station and Office Building Site			
Watering sprinkling at specific locations in dry season.	The contractor is requested to water daily (when dry weather) on the construction site to keep a reasonable humidity to reduce dust dispersion Sprinklers. 2 times / day	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Implementation time: Daily, when dry weather, from 1st January 2018 to 31st June, 2018 	<ul style="list-style-type: none"> - Construction supervision consultant: The contractor has been reminded on the spot and committed to strict compliance during the previous supervision period. However, it was not resolved until 14th Dec , 2018. - Social environment monitoring consultant: is responsible for updating the situation in the monthly report / next quarterly report.
Transmission pipelines			
none		-	-
New Issues from This Report			
Nghi Hoa Water Treatment Plant Site			
none		-	
Pump Station and Office Building Site			

Watering sprinkling at specific locations in dry season.	The contractor is requested to water daily (when dry weather) on the construction site to keep a reasonable humidity to reduce dust dispersion Sprinklers. 2 times / day	<ul style="list-style-type: none"> - Implementation responsibilities: Contractor - Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) - Construction supervisor is responsible for monitoring the remedial work - Implementation time: Daily, when dry weather; from 11th Dec, 2018; Being complied - Social environment monitoring consultant: is responsible for updating the situation in the monthly report / next quarterly report. 	
Transmission pipelines			
none		-	

4 Information Disclosure and Socialization including Capability Building

33. During field monitoring from 10th to 14th December, 2018, the consultant also consulted some project area residents on environmental issues that occurred during the construction process of the contractor.

Table 16: Residents' Feedback on the Project

No.	Projects	Residents' feedbacks	Mitigation measures
1	WTP	- Construction activities at this project do not affect our daily life	- continual CSC's and PMU's strict supervision of sanitation and environmental safeguards
2	Booster station and office	- Construction activities at this project do not affect our daily life	- continual CSC's and PMU's strict supervision of sanitation and environmental safeguards
3	Transmission pipelines	- The project is constructed quickly, does not scatter construction waste, so it does not affect the travel of people	- continual CSC's and PMU's strict supervision of sanitation and environmental safeguards

		- Workers' activities are orderly and quiet	
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34. Capacity building and community protection activities during project documentation phase are detailed in the approved IEE/EMP, RP and GAP reports. During the construction phase, the following activities have been done by the environmental specialist:

- Training/guiding on site for the contractors and construction supervising engineers about the EMP implementation during construction phase;
- Training/guiding on site for the contractors and supervising engineers to fulfil the on-site construction diary, weekly monitoring forms, to disclose the construction plans to the local authorities and communities before implementation;
- Working with the local communities for guiding and instruction about the roles of the environmental community monitoring;
- Organizing meetings with PMU and CMC to discuss on the project's EMP implementation and monitoring.

35. For this monitoring period, the environmental specialist conducted following activities:

- Re-training/guiding on site for the contractors and construction supervising engineers about the EMP implementation during construction phase;
- Interviewing/consulting with some randomly selected local people living around the project areas about the environmental and social impacts caused by the project;
- Organizing meetings with PMU's staff and CMC to discuss on the project's EMP implementation and monitoring.

5 Grievance Redress Mechanism

36. For each of the item, Grievance Redress Mechanism (GRM) has been set up to resolve complaints in a timely manner, namely:

- In each construction site, there is signage showing full information about the work, contractor, CSC, the project owner, site managers, contact details of project owner, and site manager.
- For each site, there is always the presence of a PMU officer, a CSC staff, and the site manager
- In case of grievance and complain, public members may dial the site manager, CSC, PMU's representative or seek them at the site to express their grievance or demand to resolve, mitigate or compensate for issues.
- In case of failure to come to an agreement, public members may lodge their grievance at the sites with the PMU's representative, CSC, site managers or at the PMU office. Within a month of admission, PMU director shall delegate an officer to work with involved parties including site managers, PMU's representatives, CSC and affected persons on remedial or offsetting actions.
- In case of inability to come to a satisfactory resolution, public members may appeal to higher authority in accordance with legal procedures.

Table 17: Details of personnel in charge of GRM at the sites:

No	Items	Name	Position	Phone number
1	WTP	Mr: Le Quoc Hung	Site Manager	0979874402
2	Booster station	Mr: Tran Xuan Thai	Site Manager	0985112169
3	Transmission line	Mr: VuAn Tuan	Site Manager	0978697313

37. Over the course of implementation, as of June 2018 there has been no complains from local authority and the public on adverse impacts on the environment and community done by the project.

Table 18: Grievances Received

Type of Grievance	Details (Date, person, address, contact details, etc.)	Required Action, Responsibility and Timing	Resolution
Old Issues from Previous Reports			
None			
New Issues from This Report			
None			

6 Resettlement, Social safeguards and Gender

6.1 Resettlement, Social safeguards

38. **Status of safeguards documents** that was/will be prepared from beginning as of reporting period:

- (i) A Resettlement Due Diligence Report (DDR) for the first two components (including: (i) construction of pumping station and office building in Nghi Huong ward Cua Lo town, and (ii) construction of the water treatment plant in Nghi Hoa commune Nghi Loc district) was prepared by the investor and approved by ADB in 2014. This first DDR considered to comply with social safeguard policies, including compensation, assistance and resettlement policies; compensation unit price (at replacement cost); and income restoration policy of severely affected / vulnerable households by the project. Accordingly, compensation policies are assessed to comply with the current regulations of the State of Vietnam and meet the requirements of the ADB Sponsor. Another Resettlement DDR for the transmission and distribution network was prepared separately and submitted to and approved by ADB in May 2017.
- (ii) Resettlement DDR for the transmission and distribution network was prepared separately and submitted to ADB on January 9, 2017. ADB had no objection this report on June 20, 2017.
- (iii) Resettlement Due Diligence Report (Items: Network pipeline) was prepared and submitted to ADB on Sep 18, 2018, not yet approved

39. **Pending issues and recommendation from last report** and main activities that have been done in this period for resolving these pending issues:

- 08 graves have not been relocated in Nghi Hoa water plant. The project management board cooperates with Nghi Hoa commune People's Committee to negotiate a grave relocation unit price.
- Promoting the process of backlog, problems in land acquisition of 2 households in the office building and booster pumping station. The investor has prepared a report to submit to the People's Committee of Nghe An province for requesting the adjustment of detailed construction planning of 1/500 items of office and water plant in Cua Lo town, Nghi Huong ward, town. Cua Lo Commune;
- Monitor the negotiation of compensation price for site clearance compensation of transmission pipeline item passing agricultural land of 61 households in Nghi Quang commune and Nghi Thu ward, Cua Lo town. By the time the monitoring report is prepared: completed.

40. **The impact** (affected land, affected asset on land with AHs) according to approved DDR, actual during implementation: Temporary land acquisition impact of transmission pipeline item is 4,629.46m² of agricultural land of 61 households.

41. Pipelines constructed include: The transmission network includes pipelines in diameter from DN250 to DN450 in a total length of 15.5 km; Distribution network of Cua Lo town have diameter from DN110 to DN400 with a total length of 37 km; The service network has diameter ranging from DN32 to DN90 connected from distribution network to convey water to consumers. Total length of the service network is 241,800 m connecting to 7,352 households

42. Particularly for transmission pipelines: The pipeline is installed along the left side of Provincial Road DT 534. The road has no pavement and pipeline is laid on the agricultural lands. The estimated width of acquisition land is 0.5 m from the center line to two sides of pipe with total length of 300 m. This land is not permanent land acquisition but temporary acquisition for construction and will be restored to its original condition after construction. The construction methods for these positions are performed after harvest to avoid impacts. In case of construction before or during harvest, the crops and other impacts are compensated in compliance with Vietnamese regulations and approved resettlement framework.

43. During the construction of the distribution pipes under the NA-CL-CW1 / ICB package passing through Nghi Thu ward (belonging to Highway 46 from km2 ÷ km2 + 800) and Nghi Quang commune (belonging to provincial road 536 from km 3 ÷ km4 + 315) Cua Lo town, was implemented within 20 days/route from June to July 2018. Unanticipated impacts including temporary land acquisition impacts of 4,629.46m² of agricultural land of 61 households and impacts on their trees and crops occurred (including: rice field land is 1663.5m²; Mai sticky trees is 1061.36 m²; morning glory land is 1846.6m², tomato land is 26m²) and 104 banana trees; 3 jackfruit trees; 68 edible canna trees; 54 tobacco plants; 3 guava trees; 2 mandarin trees, 10 bamboo trees. All these affected agricultural lands and trees are belonging to 61 households in Trung Tien hamlet of Nghi Quang commune of Nghi Loc district, and Dong Quyen cluster of Nghi Thu ward of Cua Lo town, and Hoa Dinh cluster of Nghi Thu ward of Cua Lo town. This is a temporary impact on agricultural land. Households will restore 100% of the cultivated area in the new season with the money received.

44. During construction of pipelines may cause temporary disturbances on living/business activities of households along the construction roads which include: (i) 25 households along Highway No. 46 (intersection close to Cua Lo Water Supply Joint Stock Company); (ii) 20 households along Sao Nam Road; (iii) 35 business households along Provincial Road No. 535 from Binh Minh intersection to Nghi Xuan Commune People's Committee; (iv) 25 households along Nguyen Hue Road; and (v) 30 households along Nguyen Sinh Cung Road. However, these impacts are minor since all the pipes are relatively small, and occur temporally in short time period. The contractor will use rolling construction methods; water to minimize dust and make temporary walkways for people

45. The service network has diameter ranging from DN32 to DN90 connected from distribution network to convey water to consumers. Total length of the service network is 241.800 m. During construction of the service network may cause temporary disturbances to the households living along the road sides. However, these impacts are minor, only occur in short time period, could not be avoided, and could be mitigated by measures such as rolling construction, watering to minimize dust, and making roads. temporary for the people..

46. The process of construction of transmission pipeline needs to implement impact mitigation measures as follows:

- These positions will be constructed in section, the ground will be restored right after being constructed; construction time will avoid the rush time of travelling and at night to minimize the effect on business activities; during construction, if there is any arisen damage

- it will be repaired and compensated in accordant with approved safeguard policy of the Project. The construction of pipelines has affected to existing facilities.
- Apply the suitable construction methods to avoid the effects on the railway, Highway, irrigation canal, etc.
 - Build intersection manholes or siphon when having clashes with the drainage pipes, irrigation canals.
 - Apply the construction methods such as segment construction, avoiding rush- hours in order to decrease the impacts on households along the road and be willing to damage compensate according to the project policy.
 - Implement construction when finishing harvest, repay the land when finishing the construction in order to decrease the impacts on the cultivated areas of the households be willing to damage compensate according to the project policy.
 - With any affect arisen during construction of pipelines, it will be compensated in compliance with approved land acquisition policies of the Project and its mitigation measures will be supervised closely during implementation.
47. **DMS:** In May 2018, based on the detailed design of transmission pipeline, the People's Committee of Nghi Quang commune and the People's Committee of Nghi Thu ward, in collaboration with the contractor Ha Huy and the Management Board of the Water Supply Project of Cua Lo Town, carried out inventory of asset on the land of 61 affected households during construction. At present, all affected households ready received the compensation. A due diligence report is being prepared of these impacts (for 61 AHs and 8 graves) and the mitigations measures implemented, the DDR will be submitted to ADB in 2019. (Minutes of consultation meeting and List of households who received money to support the affected assets during construction along the pipeline conducted in May 2018 in appendix 2)

48. **Compensation unit price and Compensation plan:**

Unit price of compensation: negotiate with the people themselves. The contractor agreed to pay for the affected trees and crops and the people agreed to receive support money. Minutes of negotiating unit price and list of **households signing for payment** of 61 affected households on agricultural land are attached in Appendix 2. The compensation unit prices applied by the investor were as follows:

Table 19: Compare unit prices agreed with households with state unit prices

Type of tree	Market rates	Unit price under the Decision No. 74/2017 / QD-UBND of Nghe An Provincial People's Committee	Agreed rates
Morning glory	5,000 VND /m2	5000 VND /m2	5000 VND /m2
Rice land	4,000 VND /m2	4000 VND/m2	4000 VND/m2
Sticky rice	7,000 VND /m2	7000 VND /m2	7000 VND /m2
Bananas	25,000 VND / tree	25000 VND / tree	25000 VND / tree
Tomato land	6000 VND /m2	6000 VND /m2	6000 VND /m2
Jackfruit trees	10000 VND /cây	10000 VND /cây	10000 VND /cây
Eucalyptus tree	80000 VND /cây	80000 VND /cây	80000 VND /cây
Tobacco plants	15,000 VND /m2	15,000 VND /m2	15,000 VND /m2
Guava trees	25,000 VND / tree	25,000 VND / tree	25,000 VND / tree

Mandarin trees	25,000 VND / tree	25,000 VND / tree	25,000 VND / tree
Bamboo trees	10000 VND /cây	10000 VND /cây	10000 VND /cây

49. The applied compensation rates for affected trees and crops are in compliance with the Decision No. 74/2017 / QD-UBND of Nghe An Provincial People's Committee, dated December 4, 2017, promulgating the price list of compensation for aquatic plants and animals and relocation of graves in the area. Nghe An province and at market rates. Regarding compensation for crops and tress, the rates applied were equivalent to the output value calculated according to the productivity of the highest crop in the preceding three years for annual crops or the current value calculated at local market prices at the time of land acquisition. These rates have been appraised by the Department of Agriculture and Rural Development. Therefore, the rates applied are assessed to meet market rates in the locality. Moreover, the rates have been consulted with the affected households during consultation and the households have agreed with the compensation rates for their affected trees and crops.

50.

51. Compensation and site clearance for the project had been carried out by the local authorities (Cua Lo Town People's Committee) from 2012 to 2016. Detailed compensation plans are approved in the following documents:

- For pumping station and office building in Nghi Huong ward, Cua Lo town, Nghe An province: detailed compensation plan approved in Document No. 20 / TC-KH dated 26 / 12/2012 of People's Committee of Cua Lo Town. Clean land was handed over first phase to the investor according to Decision no.44/QD-UBND dated 30 January, 2018 of Nghe An PPC's.
- For construction of the water treatment plant in Nghi Hoa commune, Nghi Loc district, Nghe An province: detailed compensation plan approved in Decision No. 2393 / QD-UBND dated December 28, 2012 of Nghi Loc District People's Committee. Cua Lo Water Supply JS Company signed a land lease contract no. 208/HD-TD dated 01 November, 2017 with Nghe An PPCs.
- For construction of clean water pipelines: Compensation and payment for households is carried out in the form of direct agreement with people on compensation unit prices to ensure replacement costs. Compensation has been completed quickly under the consent of all affected households and handover of clean ground to the contractors (before May 25, 2018). Because this was an unexpected expense, the contractor paid this person directly without the receipt.

52. The amount of temporary compensation for affected assets during the construction of the transmission pipeline is VND 25,759,070, including:

- Trung Tien hamlet, Nghi Quang commune, Nghi Loc district: 19,166,570 VND
- Dong Quyen block, Nghi Thu ward, Cua Lo town: 4,939,500 VND
- Hoa Dinh, Nghi Thu ward, Cua Lo town: 1,653,000 VND

53. **Consultation activities during the monitoring period:** (i) Collect evidence of compensation payment to 61 households temporarily affected on agricultural land. (ii) Follow the 1/500 planning adjustment schedule of the project

54. **Hand over land process:**

55. For pumping station and office building in Nghi Huong ward, Cua Lo town, Nghe An province: The ground handed over is 10,739.3m².

56. For construction of the water treatment plant in Nghi Hoa commune, Nghi Loc district, Nghe An province: the land area of 80,754 m² was handed over Cua Lo Water Supply JS Company, with a 50-year time period, for construction of the water treatment plant

57. The area of agricultural land temporarily handed over is 4,629.46m²

58. **Grievance:**

For pumping station and office building in Nghi Huong ward, Cua Lo town, Nghe An province:

- Till December 2018, there had been no complaints from local people and authorities recorded about the negative environmental and social impacts caused by the project construction.
- As noted, there are two households who do not agree to receive the compensation according to the land price of the decision of Nghe An Provincial People's Committee (VND 1,027,000/ m²), with an area of 3,000 m². These households would like to get a higher unit price. This issue is being continued to be addressed by the investor, Cua Lo Town People's Committee, and Cua Lo Town Land Fund Development Center. To ensure the schedule, commitment to donors and the provisions of the current Construction Investment Law. Cua Lo Water Need Joint Stock Company proposed to adjust the detailed construction plan of 1/500 scale of Cua Lo town office and water plant under the certificate of land use right No. CH 314727 (to avoid land acquisition impacts on these 2 households); The decisions to handle this issue of Nghe An Provincial People's Committee will be updated in the next report.

59. For construction of the water treatment plant in Nghi Hoa commune, Nghi Loc district, Nghe An province:

- Till December 2018, there had been no complaints from local people and authorities recorded about the negative environmental and social impacts caused by the project construction.
- As already mentioned in the previous periodic report, although a land lease contractor has been signed, however, there are eight (08) remaining graves of 08 families on this area have not been removed. Through direct communication with representative of contractor and construction supervision consultant on site, the delay in relocation of these graves is due to the agreements on price units, which have not been reached between Nghi Hoa CPC's and grave's owners on the removing plan. Although the construction activities do not affect the graves, the Cua Lo Town Water Supply Company should cooperate with the stakeholders to have a solution to remove or bring this area to the start of the project. To ensure construction activities on schedule.

6.2 As for Gender

60. Related to gender equality during approach, participation, and beneficiary from the project, Consultants has consulted to Investor and relevant contractors in order to ensure gender equality and give priorities to women, who participate into public consultation, community- based monitoring. Representatives of the local Women's Union are always invited to the consultation meeting for comments on the project. Consultants also consulted with Investor and contractors in order to guarantee gender equality and give priorities to women, who want to work in the project (including during both construction phase and the subsequent operational phase).

Table 20: Gender action plan

Date of update: 31th December, 2018

Project output	Gender Action Plan	Updated Progress	Issues/challenges and Recommendation
Output 1: Increased coverage planning and construction of water supply and distribution systems	T.1. At least 40% of residents consulted on construction design and planning are women	The project was nearly completed. So PMU does not continue to hold consultation meetings on design issues anymore. The index reached the current period of 39.1% nearly 40%. Basically acceptable.	
	T.2. 100% coverage of identified poor and women-headed HH within the project area.	In the last 6 months of 2018, due to the incomplete construction, PMU has not organized a public consultation meeting. However, according to the project criteria, PMU commits to 100% connection for poor households in the project area when the water supply network is completed.	
	A.1. Equal employment opportunities and equal pay for equal work for women and men in civil works	At peak time, the number of workers working on construction sites such as construction of pipelines is about 40 people. Including about 15 women, accounting for 37.5% Monthly amount received: VND 6 million/month Amount received/working day: VND 220,000/day	
	T3. Target 30% female laborers in unskilled civil works with support of local Women's Unions	At peak time, the number of workers working on construction sites such as construction of pipelines is about 40 people. Including about 15 women, accounting for 37.5%	
	T4.Target 30% female employment in technical (field and laboratory), community liaison and managerial roles in PMU (and or WSC)	Currently, Cua Lo Water Supply Project has 7 members, including 2 female members (accounting for 28.5%). The number of women working for Cua Lo Water Supply Company are 15 employees, accounting for 31%.	

Project output	Gender Action Plan	Updated Progress	Issues/challenges and Recommendation
		Customer service team: 90% female. This index is basically satisfactory	
	T5.Target 25% women in CSBs (at ward level), CRCs and PMUs	Each community monitoring board has 5 members. There are 3 males and 2 females, accounting for 40% This index is basically satisfactory	
	A2.Train all CSB members—men and women—on various aspects of project oversight	5 people in every community monitoring board were all trained on environmental protection monitoring until the project was completed.	
	A3. Separate women's latrines and living quarters at construction sites	At the construction site, there are separate toilets for men and women.	Built according to the technical design of the project. There is no difficulties.
Output 2: Improved business planning, asset and financial management Improve operation and maintenance, improve strategic analysis and planning of the water supply companies and effective monitoring	A4.Water tariff increase agreed at midterm review with gender and affordability considerations	According to the approved project, the water price increases according to the schedule of 2 years. Each time the increase ups to 24%. The ability to pay is calculated in details according to the price increase schedule which ensures that poor households pay less than 6% of their total income is acceptable.	
	A5.Provide gender awareness training for all levels of WSC, project staff, subproject steering committees, CSBs, and consultants to increase sensitivity on water and gender issues, including through exposure	According to the approved gender action plan, the last six months of 2018 do not hold any gender awareness training.	

Project output	Gender Action Plan	Updated Progress	Issues/challenges and Recommendation
and evaluation	visits for female staff of WSC and Women's Union members.		
	T6. Target 50% female staff for new recruits in each PMU and water companies/enterprises in technical and project management positions	Currently, Cua Lo Water Supply Project PMU has 7 members, including 2 female staffs (accounting for 28.5%). The women staff of Cua Lo Water Supply Company are 15 employees, accounting for 31%. The customer care team has 13 women.	
	T7. Ensure 30% female staff participation in training on technical issues like water supply management, scheme operations and maintenance (including NRW reduction)	Currently, the company is sending staffs to study at the Nghe An water supply plant. Quantity: 3 people In which: Number of women: 1, accounting for 33%	
	A6.Partner with Women's Union and Community Health Centers in IEC planning and delivery that target both male and female residents and local authorities' representatives equally	The last 6 months of 2018 did not organize IEC implementation	
	A7.Gender-responsive IEC materials integrating women's issues and needs, disseminated through channels accessed by women		

Project output	Gender Action Plan	Updated Progress	Issues/challenges and Recommendation
	T8. Ensure 30% of meter readers and 50% of IEC facilitators employed by WSC and PMU are women	There are 13 people who perform the clock checks, 100% of them are women There are 11 people working as media partners About 67% of them are women	
	A8.During construction, inform women of water supply interruption schedules to enable better household planning and minimize disruptions	In the last 6 months of 2018, the construction of transmission pipelines does not affect the current situation of water supply.	
	A9.Disaggregate customer feedback by sex for use in future planning and in project quarterly reports and biannual GAP Progress Reports	There are currently no feedback or complaints from the community.	
Output 3: Effective NRW reduction	A10.Publicize water tariff roadmap which integrates gender and affordability concerns informed by VWU participation in roadmap planning exercises	The route for price increase is published in the feasible study report at the People's Committees of 11 wards/communes under the project. Prior to the preparation of the project report, the project team consulted in 11 wards, including representatives of local women's unions.	
	A11.Ensure appropriate monitoring mechanism and staff resourcing for the implementation of decree 117/2007 and Decree 124/2011 to ensure lifeline tariff and free connections to 100% of identified	The PMU is in compliance with the law to ensure that 100% of poor and female headed households have access to clean water Mr. Tri who takes responsibility of social safeguard in PMU is assigned to monitor free connections for poor households	

Project output	Gender Action Plan	Updated Progress	Issues/challenges and Recommendation
	poor and women-headed households.		

CRC = Compensation and Resettlement Committee; CSB = Community Supervision Board; HH = Household; IEC = Information, Education and Communication; MBC = Metering, Billing and Collection; PMU = Project Monitoring Unit; VWU = Viet Nam Women's Union; WSC = Water Supply Company.

7 Conclusion

Environment

61. By the time of reporting (December 31st, 2018), basically the project's EMPs has been implemented well by the contractors and PMU. However, there are some following issues those need to be solved, including:

62. For EMP compliance:

- Although there was some improvement in equipping safety clothing for workers, the workers exposed to loud noise were not equipped with noise-canceling ear plugs. It is recommended that the contractor need to equip with noise-canceling ear plugs for their workers who are exposed to loud noise.
- The activities of watering sprinkling at specific locations in dry season were not conducted properly by the contractors during the construction. It is recommended that the contractor is requested to water daily (when dry weather) on the construction site to keep a reasonable humidity to reduce dust dispersion.
- There is gutter collecting wastewater/stormwater at the site leading to the main sewers of the district. The contractor is requested to immediately collect domestic wastewater and connect it to the common wastewater drainage system.
- Some workers had been working without person protection equipment PPE (shoes, safety helmets). The contractor should supervise and remind more regularly.
- Safety warning signs on the construction site were not installed sufficiently. It is recommended that the contractor should install sufficiently warning signs on the construction site during construction implementation.
- Onsite collection of construction wastes was not implemented well. The contractors are requested to regularly collect construction wastes onsite.

Resettlement:

63. Compensation and site clearance for the project had been carried out by the local authorities (Cua Lo Town People's Committee) from 2012 to the present. The compensation process was complied with Vietnamese laws and regulations and also adapting with ADB's social safeguards policies. Some minor remaining issues on resettlement which need to be solved are:

- For the site of pumping station and office building: There are still two households who do not agree to receive the compensation according to the land price of the decision of Nghe An Provincial People's Committee (VND 1,027,000/m²), with an area of 3,000 m². These households would like to get a higher unit price. This issue is being continued to work by the investor, Cua Lo Town People's Committee, and Cua Lo Town Land Fund Development Center. The plan proposed by the investor is to request the People's Committee of Nghe An province to adjust the detailed construction plan of the construction site area of 1/500 scale to remove the 3,000 m³ land area of these two households from the project scope.
- For the site of water treatment plant in Nghi Hoa commune: There are eight (08) remaining graves on this area have not been removed. Through direct communication with representative of contractor and construction supervision consultant on site, the delay in relocation of these graves is due to the agreements on price have not been reached between Nghi Hoa CPC's and grave's owners on the removing plan. The group of social environment monitoring experts recommends that Cua Lo Water Supply Joint Stock Company should submit to Nghe An Provincial People's Committee the adjustment of the fence of Nghi Hoa clean water plant inside to remove 8 graves from the area. vi project

64. Compensation for ground clearance is basically completed and handover of the ground in time for the work construction project. It is recommended that contractors, construction supervision consultants pay more attention to the protection of workers' health and safety; Ensure traffic safety near the construction site when people pass through here.

Appendix

- Appendix 1: Detailed planning for the construction of 1/500 office and pump station
- Appendix 2: Minutes of consultation meeting and List of households who receive money to support the affected assets during construction along the pipeline
- Appendix 3: Results of analysis of environmental samples during construction phase

Appendix 1: Detailed planning for the construction of 1/500 office and pump station

UBND TỈNH NGHỆ AN
CÔNG TY CP CẤP NƯỚC CỬA LÒ
Số: 25/TT-CNCL

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

Cửa Lò, ngày 24 tháng 11 năm 2018.

TỜ TRÌNH

Về việc điều chỉnh quy hoạch chi tiết xây dựng tỷ lệ 1/500 Văn phòng và nhà máy nước thị xã Cửa Lò thuộc dự án: Nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò.

Kính gửi: - UBND Tỉnh Nghệ An.
- UBND thị xã Cửa Lò.
- Sở Xây dựng.

Căn cứ Quyết định số 3549/QĐ-UBND-CN ngày 17/9/2012 của UBND tỉnh Nghệ An về việc phê duyệt quy hoạch chi tiết xây dựng tỷ lệ 1/500 Văn phòng và nhà máy nước thị xã Cửa Lò;

Căn cứ Quyết định số 3233/QĐ-UBND ngày 5/7/2016 của UBND tỉnh Nghệ An về việc phê duyệt hồ sơ thiết kế bản vẽ thi công và dự toán xây dựng công trình : Nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò.

Căn cứ hợp đồng NA-CL-CW1/ICB ngày 12 tháng 6 năm 2017 giữa Công ty Cổ phần cấp nước Cửa Lò và Liên danh Công ty cổ phần Hà Huy, Tổng công ty Đầu tư Nước và Môi trường Việt Nam – CTCP và Công ty cổ phần xây dựng số 12. Tiến độ kết thúc dự án là tháng 12 năm 2018 (18 tháng).

Đến nay dự án đã triển khai được 15 tháng/18 tháng theo điều khoản thực hiện hợp đồng đảm bảo đúng tiến độ, khối lượng thực hiện đạt 80%. Để đảm bảo tiến độ và thời gian của dự án theo hợp đồng đã cam kết với Ngân hàng phát triển Châu Á (ADB). Chủ đầu tư Công ty cổ phần cấp nước Cửa Lò kính trình UBND tỉnh Nghệ An; UBND thị xã Cửa Lò; Sở Xây dựng cho phép điều chỉnh quy hoạch quy chi tiết xây dựng tỷ lệ 1/500 Văn phòng và nhà máy nước thị xã Cửa Lò tại khối 14 phường Nghi Hương thị xã Cửa Lò như sau:

- Tổng diện tích đất Quy hoạch là: 12.240,3 m².

- Đất giao đợt 1 ngày 01/3/2018 đã được UBND Tỉnh cấp giấy chứng nhận quyền sử dụng đất số CH 314727 với diện tích là 10.729,3 m².

- Đất của 2 hộ dân không nhận tiền bồi thường và không chấp nhận phương án tái định cư là: 3.000 m² trong đó 1.511 m² thuộc dự án: nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò (Chủ đầu tư, UBND thị xã Cửa Lò, trung tâm phát triển quỹ đất thị xã Cửa Lò đã đàm phán nhiều lần cùng nhau làm việc với người dân nhưng không đạt được kết quả, giá đất theo UBND tỉnh phê duyệt là 1.027.000 đồng/m² trong khi người dân yêu cầu 1.500.000 đồng/m²). Diện tích còn lại 1.489 m² nằm trong quy hoạch mở rộng đường 30m và quy hoạch: Xây dựng nhà máy sản xuất lắp ráp điện thoại và máy vi tính Trung Thiên. Dự án này được phê duyệt triển khai năm 2007 nhưng đến nay vẫn chưa thực hiện.

Để không làm ảnh hưởng đến tiến độ chung về việc giải ngân và quyết toán của dự án cuối tháng 12/2018 theo hợp đồng đã ký kết Công ty CP cấp nước Cửa Lò kính trình UBND tỉnh Nghệ An; UBND thị xã Cửa Lò; Sở Xây dựng cho phép điều chỉnh quy hoạch chi tiết xây dựng tỷ lệ 1/500 Văn phòng và nhà máy nước thị xã Cửa Lò theo giấy chứng nhận quyền sử dụng đất số CH 314727 (không lấy đất của 02 hộ dân) đảm bảo đúng tiến độ, cam kết với nhà tài trợ và đúng qui định của Luật đầu tư xây dựng hiện hành.

Trân trọng cảm ơn!

Nơi nhận:

- Như trên;
- Ban QLDA;
- Lưu VP/c.ty

TM. HỘI ĐỒNG QUẢN TRỊ



Nguyễn Hữu Luận

Translation of Appendix 1

PEOPLE'S COMMITTEE OF NGHỆ AN PROVINCE
CUA LO WATER SUPPLY JOINT STOCK COMPANY
(CLWSC)

SOCIALIST REPUBLIC OF VIET NAM
Independence - Freedom - Happiness

Cua Lo, Nov 24, 2018

Report

Regarding the adjustment of detailed construction plans of 1/500 scale of Cua Lo town office and water plant under the project: Upgrading and expanding Cua Lo provincial water supply system

Dear :	- Nghệ An Provincial People's Committee
	- Cua Lo Town People's Committee
	- Facility construction

Pursuant to Decision No. 3549 / QĐ - UBND - CN dated September 17, 2012 of Nghệ An Provincial People's Committee approving the detailed construction planning of 1/500 scale of Cua Lo Town Water Office and Plant

Pursuant to Decision No. 3233 / QĐ - UBND dated July 5, 2016 of Nghệ An Provincial People's Committee approving construction drawing design documents and construction cost estimates of works: Upgrading and expanding the water supply system - Cua Lo town.

Based on the N.A - CL - CW1 / KCB contract dated June 12, 2017 between Cua Lo Water Supply Joint Stock Company and the Joint Venture of Ha Huy Joint Stock Company, Vietnam Water and Environment Investment Corporation - JSC and Construction Joint Stock Company No. 12. The project completion schedule is December 2018 (18 months).

Up to now, the project has been implemented for 15 months / 18 months under the terms of contract performance to ensure on schedule, the implementation volume reaches 80%. To ensure the progress and duration of the project according to the contract committed with the Asian Development Bank (ADB). Investor of Cua Lo Water Supply Joint Stock Company submits to People's Committee of Nghệ An province; People's Committee of Cua Lo Town; Department of Construction allows adjustment of detailed construction planning of 1/500 scale of Office and Water Plant of Cua Lo Town at Block 14, Nghi Hung Ward, Cua Lo Town as follows:

- The total planning land area is: 12,240.3m²
- The land allocated for the first phase on March 1, 2018 has been issued a land use right certificate No. CII 314727 with an area of 10,729.3m²
- Land of two households who do not receive compensation money and do not accept the resettlement plan is: 3,000m² of which 1,511m² of the project: upgrading and expanding the Cua Lo town water supply system (The investor, the People's Committee of Cua Lo town, the land fund development center of Cua Lo town has repeatedly worked with people. However, if people do not achieve the results, the land price approved by the Provincial People's Committee is VND1,027,000/m² while the people request VND500,000/m²). Remaining area 1,488m² is in the 30m road expansion planning and planning: Building Trung Thien phone and computer assembly factory. This project was approved in 2007 but has not been implemented yet.

In order not to affect the overall progress of the disbursement and settlement of the project by the end of December 2018 under the signed contract of Cua Lo Water Supply Joint Stock Company to submit to the People's Committee of Nghệ An province, People's Committee of Cua Lo Town, Department of Construction allows adjusting the detailed construction plan of 1/500 scale of Cua Lo Town Office and Water Plant according to the land use right certificate CII 314727 (without taking land from 02 households) to ensure on schedule, commitments with donors and the provisions of the current Construction Investment Law.

Appendix 2: Minutes of consultation meeting and List of households who receive money to support the affected assets during construction along the pipeline.

Minutes of working with Nghi Thu People's Committee on agreement on unit price to support people affected by the pipeline through agricultural land. And pledge to return the ground after construction

**CÔNG TY CP
CẤP NƯỚC CỬA LÒ**

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc**

Cửa Lò, ngày 15 tháng 05 năm 2018

BIÊN BẢN LÀM VIỆC

**Thương thảo đơn giá hỗ trợ đền bù trong quá trình thi công tuyến ống thuộc
dự án cấp nước thị xã Cửa Lò**

I. THÀNH PHẦN THAM GIA:

1. Đại diện UBND phường Nghi Thu:

- Ông: Phùng Trọng Thọ Chức vụ: Chủ tịch UBND phường Nghi Thu

2. Đại diện chủ đầu tư Công ty CP Cấp nước Cửa Lò:

- Ông: Nguyễn Đậu Lương Chức vụ: Phó ban QLDA.

3. Đại diện đơn vị thi công: Công ty cổ phần Hà Huy

- Ông: Hà Huy Toàn Chức vụ: Phó giám đốc công ty.

II. NỘI DUNG:

1. Căn cứ

- Căn cứ Quyết định số 3233/QĐ-UBND ngày 05/07/2016 của UBND Tỉnh Nghệ An về việc phê duyệt hồ sơ thiết kế BVTC và dự toán xây dựng công trình: Nâng cấp và mở rộng hệ thống cấp nước thị xã Cửa Lò.

- Căn cứ Hợp đồng xây dựng NA-CL-CW1/ICB ngày 12/06/2017 giữa Công ty Cổ phần Cấp nước Cửa Lò và Liên danh Nhà thầu Công ty Cổ phần Hà Huy, Tổng công ty Đầu tư Nước và Môi trường Việt Nam và Công ty cổ phần xây dựng số 12 (Hà Huy-Viwaseen-Vinaconex12);

- Căn cứ thỏa thuận liên danh giữa 3 nhà thầu là công ty Cổ phần Hà Huy- Tổng công ty Đầu tư Nước và Môi trường Việt Nam - Công ty cổ phần xây dựng số 12;

2. Thành phần tham dự

a. Đại diện UBND phường Nghi Thu

Hiện nay, trong quá trình thi công tuyến ống truyền tải HDPE DN250 qua địa bàn phường Nghi Thu, có đi qua phần đất nông nghiệp của một số hộ dân trong xã. Do quá trình thi công có thể ảnh hưởng đến cây cối, hoa màu trên phần đất thuộc các hộ dân. Đề nghị chủ đầu tư và nhà thầu thi công thỏa thuận và hỗ trợ thiệt hại các tài sản trên đất cho người dân.



dân. Đề nghị chủ đầu tư và nhà thầu thi công thỏa thuận và hỗ trợ thiệt hại các tài sản trên đất cho người dân.

b. Đại diện chủ đầu tư

Chúng tôi cam kết:

- Hỗ trợ đầy đủ theo đơn giá thỏa thuận đối cây cối, hoa màu cho các hộ dân mà đường ống đi qua gây ảnh hưởng tạm thời trong quá trình thi công
- Hạn chế tối đa mức độ ảnh hưởng đến cuộc sống và đảm bảo cây cối, hoa màu của các hộ dân;
- Đảm bảo an toàn giao thông trong quá trình thi công;
- Đảm bảo công tác hoàn trả mặt bằng theo hiện trạng khi chúng tôi đã hoàn thành tuyến ống trong thời gian sớm nhất, phục vụ đời sống của nhân dân;
- Đảm bảo để người dân thu hoạch xong mới triển khai thi công;
- Thời gian thi công: kết thúc trước mùa vụ mới.



c. Đại diện người dân

- Chúng tôi đồng ý nhận tiền hỗ trợ theo đơn giá được chủ đầu tư và nhà thầu đề xuất và đính kèm trong danh sách nhận tiền
- Chúng tôi mong muốn nhà thầu sẽ triển khai thực hiện sớm. Thi công cuốn chiếu tránh kéo dài thời gian để người dân được trồng trọt đúng mùa vụ mới

III. KẾT LUẬN:

- Các bên thống nhất các nội dung trên.
- Biên bản này được lập thành 3 bản, mỗi bên 1 bản có giá trị pháp lý như nhau.

ĐẠI DIỆN UBND XÃ

ĐẠI DIỆN NHÀ THẦU THI CÔNG


Nguyễn Đức Thái





ĐẠI DIỆN CHỦ ĐẦU TƯ

Hà Huy Toàn

Nguyễn Đức Lương

Cua Lo, May 15, 2018

WORKING VERSION

Regarding: Consultation, negotiating unit price to support compensation for assets on affected land of 61 households during the construction of pipelines under Cua Lo town water supply project.

I. PARTICIPANTS

1. Representative of Nghi Thu ward People's Committee:
 - Mr. Phung Truong Tho Position: Chairman of Nghi Thu ward People's Committee
2. Representative of investor of Cua Lo Water Supply Joint Stock Company:
 - Mr. Nguyen Dau Luong Position: Deputy Project Management Unit.
3. Construction unit's representative: Ha Huy Joint Stock Company
 - Mr.: Ha Huy Toan Position: Deputy director of the company.

II. CONTENT:

1. Legal grounds

- Pursuant to Decision No. 3233 / QĐ-UBND dated July 5, 2016 of Nghe An Provincial People's Committee, approving the design document of feasibility study and construction cost estimates: Upgrading and expanding the town water supply system Cua Lo.
- Pursuant to the Construction Contract NA-CL-CW1 / ICB dated June 12, 2017 between Cua Lo Water Supply Joint Stock Company and the Joint Venture of Ha Huy Joint Stock Company, Water and Environment Investment Corporation Vietnam and Construction Joint Stock Company No. 12 (HaHuy-Viwaseen-Vinaconex12);
- Based on the joint venture agreement between 3 contractors: Ha Huy Joint Stock Company - Vietnam Water and Environment Investment Corporation - Construction Joint Stock Company No. 12;

2. Participants

a. Representative of Nghi Thu ward People's Committee

Currently, in the process of constructing HDPE DN250 transmission pipeline through Nghi Thu ward (belonging to QL46 from km2 ÷ km2 + 800) , there is passing agricultural land of some households in the commune. Because the construction process may affect trees and crops on the land belonging to households. Proposing the investor and the construction contractor to agree and support the damage of properties on land to the people.

b. Representative of the investor

Our commitment

- Fully support according to the agreed unit price of trees and crops for households that the pipeline passes through, temporarily affecting the construction process.
- Minimize the level of affecting the lives and ensure trees and crops of the households;
- Ensuring traffic safety during the construction process;
- Ensure the return of the ground to the status quo when we have completed the pipeline as soon as possible, serving the life of the people;
- Ensuring that the people can harvest and then start construction.
- Construction period: ending before new season

c. Representative of the people

- We agree to receive the support according to the unit price proposed by the investor and the contractor and attached to the list of money received
- We expect the contractor will implement it soon. Construction of rolling mats to avoid prolonging the time for people to plant new crops

III. CONCLUDE :

- The parties agree on the above.
- This record is made into 4 copies, each party has 1 copy with equal legal validity.

**REPRESENTATIVE OF NGHI INVESTOR REPRESENTATIVE
QUANG COMMUNE PEOPLE'S
COMMITTEE**

**REPRESENTATIVE OF THE
PEOPLE**

**CONTRACTOR'S
REPRESENTATIVE**

Minutes of working with Nghi Quang People's Committee on agreement on unit price to support people affected by the pipeline through agricultural land. And pledge to return the ground after construction

**CÔNG TY CP
CẤP NƯỚC CỬA LÒ**

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc**

Cửa Lò, ngày 15 tháng 05 năm 2018

BIÊN BẢN LÀM VIỆC

**Thương thảo đơn giá hỗ trợ đền bù trong quá trình thi công tuyến ống thuộc
dự án cấp nước thị xã Cửa Lò**

I. THÀNH PHẦN THAM GIA:

1. Đại diện UBND xã Nghi Quang:

- Ông: Nguyễn Đình Thanh Chức vụ: Chủ tịch UBND xã Nghi Quang
- Ông: Nguyễn Hoàng Vinh Chức vụ: Cán bộ địa chính xã Nghi Quang

2. Đại diện chủ đầu tư Công ty CP Cấp nước Cửa Lò:

- Ông: Nguyễn Đậu Lương Chức vụ: Phó ban QLDA.

3. Đại diện đơn vị thi công: Công ty cổ phần Hà Huy

- Ông: Hà Huy Toàn Chức vụ: Phó giám đốc công ty.

II. NỘI DUNG:

1. Căn cứ

- Căn cứ Quyết định số 3233/QĐ-UBND ngày 05/07/2016 của UBND Tỉnh Nghệ An về việc phê duyệt hồ sơ thiết kế BVTC và dự toán xây dựng công trình: Nâng cấp và mở rộng hệ thống cấp nước thị xã Cửa Lò.
- Căn cứ Hợp đồng xây dựng NA-CL-CW1/ICB ngày 12/06/2017 giữa Công ty Cổ phần Cấp nước Cửa Lò và Liên danh Nhà thầu Công ty Cổ phần Hà Huy, Tổng công ty Đầu tư Nước và Môi trường Việt Nam và Công ty cổ phần xây dựng số 12 (Hà Huy-Viwaseen-Vinaconex12);
- Căn cứ thỏa thuận liên danh giữa 3 nhà thầu là công ty Cổ phần Hà Huy- Tổng công ty Đầu tư Nước và Môi trường Việt Nam - Công ty cổ phần xây dựng số 12;

2. Thành phần tham dự

a. Đại diện UBND xã Nghi Quang

Hiện nay, trong quá trình thi công tuyến ống truyền tải HDPE DN250 qua địa bàn xã Nghi Quang, có đi qua phần đất nông nghiệp của một số hộ dân trong xã. Do quá trình thi công có thể ảnh hưởng đến cây cối, hoa màu trên phần đất thuộc các hộ



b. Đại diện chủ đầu tư

Chúng tôi cam kết:

- Hỗ trợ đầy đủ theo đơn giá thỏa thuận đối cây cối, hoa màu cho các hộ dân mà đường ông đi qua gây ảnh hưởng tạm thời trong quá trình thi công
- Hạn chế tối đa mức độ ảnh hưởng đến cuộc sống và đảm bảo cây cối, hoa màu của các hộ dân;
- Đảm bảo an toàn giao thông trong quá trình thi công;
- Đảm bảo công tác hoàn trả mặt bằng theo hiện trạng khi chúng tôi đã hoàn thành tuyến ống trong thời gian sớm nhất, phục vụ đời sống của nhân dân;
- Đảm bảo để người dân thu hoạch xong mới triển khai thi công;
- Thời gian thi công: kết thúc trước mùa vụ mới.

c. Đại diện người dân


- Chúng tôi đồng ý nhận tiền hỗ trợ theo đơn giá được chủ đầu tư và nhà thầu đề xuất và đính kèm trong danh sách nhận tiền;
- Chúng tôi mong muốn nhà thầu sẽ triển khai thực hiện sớm. Thi công cuốn chiếu tránh kéo dài thời gian để người dân được trồng trọt đúng mùa vụ mới.

III. KẾT LUẬN:

- Các bên thống nhất các nội dung trên.
- Biên bản này được lập thành 3 bản, mỗi bên 1 bản có giá trị pháp lý như nhau.


ĐẠI DIỆN UBND PHƯỜNG

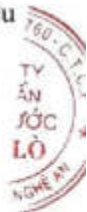
ĐẠI DIỆN NHÀ THẦU THI CÔNG


Phung Trong Tho



Nguyễn Lân Lương


Hà Huy Toàn



Cua Lo, May 15, 2018

WORKING VERSION

Regarding: Consultation, negotiating unit price to support compensation for assets on affected land of 61 households during the construction of pipelines under Cua Lo town water supply project.

I. PARTICIPANTS

1. Representative of Nghi Quang Commune People's Committee:
 - Mr. Nguyen Dinh Thanh Position: Chairman of Nghi Quang Commune People's Committee
 - Mr. Nguyen Hoang Vinh Position: Cadastral official in Nghi Quang commune
2. Representative of investor of Cua Lo Water Supply Joint Stock Company:
 - Mr. Nguyen Dau Luong Position: Deputy Project Management Unit.
3. Construction unit's representative: Ha Huy Joint Stock Company
 - Mr.: Ha Huy Toan Position: Deputy director of the company.

II. CONTENT:

1. Legal grounds

- Pursuant to Decision No. 3233 / QĐ-UBND dated July 5, 2016 of Nghe An Provincial People's Committee, approving the design document of feasibility study and construction cost estimates: Upgrading and expanding the town water supply system Cua Lo.
- Pursuant to the Construction Contract NA-CL-CW1 / ICB dated June 12, 2017 between Cua Lo Water Supply Joint Stock Company and the Joint Venture of Ha Huy Joint Stock Company, Water and Environment Investment Corporation Vietnam and Construction Joint Stock Company No. 12 (HaHuy-Vivasecn-Vinacorex12).
- Based on the joint venture agreement between 3 contractors: Ha Huy Joint Stock Company - Vietnam Water and Environment Investment Corporation - Construction Joint Stock Company No. 12;

2. Participants

a. Representative of Nghi Quang Commune People's Committee

Currently, in the process of constructing HDPE DN250 transmission pipeline through Nghi Quang commune (belonging to provincial road 536 from km 3 + km4 + 315) , there is passing agricultural land of some households in the commune. Because the construction process may affect trees and crops on the land belonging to households.

Proposing the investor and the construction contractor to agree and support the damage of properties on hand to the people.

b. Representative of the investor

Our commitment

- Fully support according to the agreed unit price of trees and crops for households that the pipeline passes through, temporarily affecting the construction process.
- Minimize the level of affecting the lives and ensure trees and crops of the households;
- Ensuring traffic safety during the construction process;
- Ensure the return of the ground to the status quo when we have completed the pipeline as soon as possible, serving the life of the people;
- Ensuring that the people can harvest and then start construction.
- Construction period: ending before new season

c. Representative of the people

- We agree to receive the support according to the unit price proposed by the investor and the contractor and attached to the list of money received
- We expect the contractor will implement it soon. Construction of rolling mats to avoid prolonging the time for people to plant new crops

III. CONCLUDE :

- The parties agree on the above.
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**REPRESENTATIVE OF NGHI INVESTOR REPRESENTATIVE
QUANG COMMUNE PEOPLE'S
COMMITTEE**

**REPRESENTATIVE OF THE
PEOPLE** **CONTRACTOR'S
REPRESENTATIVE**

List of households receiving asset support from the pipeline running through the Cua Lo town water supply project

Table of property statistics and a list of payments of households in Trung Tien hamlet, Nghi Quang commune (sheet 1)

No.	Owner	Address	Number of plants	The total area m2	Unit price	Into money	The total amount actually received	Sign	Types of properties
1	Hoàng Văn Thái	Trung Tien hamlet		194	5000	970,000	1,195,000		Morning glory
			10		10000	100,000			Bananas
			5		25000	125,000			Bananas
2	Lương Thị Hoa	Trung Tien hamlet		37.2	7000	260,400	260,400		Sticky rice
3	Nguyễn Đình Tiến	Trung Tien hamlet		26	3100	80,600	407,750		Ca Phao
				34.2	7000	239,400			Sticky rice
				19.5	4500	87,750			rice field land
4	Hoàng Văn Cát	Trung Tien hamlet		21.34	4500	96,030	96,030		rice field land
5	Nguyễn Đình Phụng	Trung Tien hamlet		28.8	4500	129,600	129,600		rice field land
6	Nguyễn Kế Vinh	Trung Tien hamlet		24.75	4500	111,375	111,375		rice field land
7	Nguyễn Đình Tuyên	Trung Tien hamlet		16.6	7000	116,200	116,200		Sticky rice
8	Nguyễn Đình Ký	Trung Tien hamlet		18.9	7000	132,300	132,300		Sticky rice
9	Nguyễn Đình Công	Trung Tien hamlet		32.4	7000	226,800	226,800		Sticky rice
10	Trần Văn Hồng	Trung Tien hamlet		48.96	7000	342,720	342,720		Sticky rice
11	Trần thị Hường	Trung Tien hamlet		54.95	7000	384,650	384,650		Sticky rice

12	Nguyễn Đình Tý	Trung Tien hamlet		57.35	7000	401,450	401,450		Sticky rice
13	Hoàng Văn Bình	Trung Tien hamlet		64	7000	448,000	448,000		Sticky rice
14	Nguyễn Văn Hồng	Trung Tien hamlet		63.2	7000	442,400	442,400		Sticky rice
15	Trần Xuân Sửu	Trung Tien hamlet		24	7000	168,000	168,000		Sticky rice
16	Nguyễn Văn Nga	Trung Tien hamlet		37.6	7000	263,200	263,200		Sticky rice
17	Nguyễn Đình Hòa	Trung Tien hamlet		108	4000	432,000	432,000		Rice land
18	Trần Văn Nhường	Trung Tien hamlet		112	4000	448,000	448,000		Rice land

BẢNG THÔNG KÊ TÀI SẢN HỒ TRỢ BỀN BỮ DỰ ÁN NƯỚC SẠCH VINH - CỬA LỎ

Địa điểm: Xóm Trung Tiến, xã Nghi Quang, huyện Nghi Lộc

TT	Chủ sở dụng	Địa chỉ	Số lượng các loại cây (Cây)	Tổng diện tích (m ²)	Đơn giá (đồng)	Thành tiền (đồng)	Tổng tiền thực nhận (đồng)	Ký nhận	Các loại tài sản	Ghi chú
1	Hoàng Văn Thái	Xóm Trung Tiến	10	194	5.000	970.000	1.193.000	<i>Kết</i>	<i>Đất Màng</i>	5.000 đồng/m ²
			5		10.000	100.000			Choi chưa thu hoạch	10.000 đồng/Cây
2	Lương Thị Hoa	Xóm Trung Tiến		37,2	7.000	260.400	260.400	<i>lúa</i>	Choi Sắp thu hoạch	25.000 đồng/Cây
3	Nguyễn Đình Tiến	Xóm Trung Tiến		26	3.100	80.600		<i>Mai</i>	Ngô Nếp địa phương	7.000 đồng/m ²
				34,2	7.000	239.400	407.750		Cà phê	3.100 đồng/m ²
				19,5	4.500	87.750			Ngô Nếp địa phương	7.000 đồng/m ²
4	Hoàng Văn Cát	Xóm Trung Tiến		21,45	4.500	96.525	96.525	<i>Cát</i>	Lúa trên đất 2 lúa	4.500 đồng/m ²
5	Nguyễn Đình Phương	Xóm Trung Tiến		28,8	4.500	129.600	129.600	<i>Phương</i>	Lúa trên đất 2 lúa	4.500 đồng/m ²
6	Nguyễn Kế Vinh	Xóm Trung Tiến		24,75	4.500	111.375	111.375	<i>lúa</i>	Lúa trên đất 2 lúa	4.500 đồng/m ²
7	Nguyễn Đình Tuấn	Xóm Trung Tiến		16,6	7.000	116.200	116.200	<i>lúa</i>	Lúa trên đất 2 lúa	4.500 đồng/m ²
8	Nguyễn Đình Kỳ	Xóm Trung Tiến		18,9	7.000	132.300	132.300	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
9	Nguyễn Đình Công	Xóm Trung Tiến		32,4	7.000	226.800	226.800	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
10	Trần Văn Hồng	Xóm Trung Tiến		48,96	7.000	342.720	342.720	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
11	Trần Thị Hương	Xóm Trung Tiến		54,95	7.000	384.650	384.650	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
12	Nguyễn Đình Tý	Xóm Trung Tiến		57,35	7.000	401.450	401.450	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
13	Hoàng Văn Bình	Xóm Trung Tiến		64	7.000	448.000	448.000	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
14	Nguyễn Văn Hồng	Xóm Trung Tiến		63,2	7.000	442.400	442.400	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
15	Trần Xuân Sơn	Xóm Trung Tiến		24	7.000	168.000	168.000	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
16	Nguyễn Văn Nga	Xóm Trung Tiến		37,6	7.000	263.200	263.200	<i>lúa</i>	Ngô Nếp địa phương	7.000 đồng/m ²
17	Nguyễn Đình Hoà	Xóm Trung Tiến		108	4.000	432.000	432.000	<i>lúa</i>	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
18	Trần Văn Nhường	Xóm Trung Tiến		112	4.000	448.000	448.000	<i>lúa</i>	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²

Table of property statistics and a list of payments of households in Trung Tien hamlet, Nghi Quang commune (sheet 2)

No .	Owner	Address	Number of plants	The total area a m2	Unit price	Into money	The total amount actually received	Sign	Types of properties
19	Trần Văn Trường	Trung Tien hamlet		102	4000	408,000	408,000		Rice land
20	Trần Thị Hoa	Trung Tien hamlet		78	4000	312,000	312,000		Rice land
21	Trần Văn Nhật	Trung Tien hamlet		114	4000	456,000	456,000		Rice land
22	Nguyễn Mạnh Hùng	Trung Tien hamlet		114	4000	456,000	456,000		Rice land
23	Nguyễn Ngọc Thái	Trung Tien hamlet		94	4000	376,000	376,000		Rice land
24	Nguyễn Văn Thám	Trung Tien hamlet		94	4000	376,000	376,000		Rice land
25	Nguyễn Thị Phương	Trung Tien hamlet		114	4000	456,000	456,000		Rice land
26	Hoàng Văn Bình	Trung Tien hamlet		94	4000	376,000	376,000		Rice land
27	Trần Thị Trường	Trung Tien hamlet		114	4000	456,000	456,000		Rice land
28	Nguyễn Văn Hồng	Trung Tien hamlet		96	4000	384,000	384,000		Rice land
29	Trần Văn Ngạch	Trung Tien hamlet	20		10000	200,000	1,488,000		jackfruit trees
			5		25000	125,000			guava trees
			3		10000	30,000			Bananas
			3		25000	75,000			mandarin trees
			2		25000	50,000			Bananas
			2		80000	160,000			eucalyptus tree
			10		10000	100,000			bamboo trees
				187	4000	748,000			Rice land
30	nguyễn Thị Phương	Trung Tien hamlet		94	7000	658,000	658,000		Sticky rice
31	Nguyễn Văn Hậu	Trung Tien hamlet		45.2	7000	316,400	316,400		Sticky rice
32	Nguyễn Văn Hường	Trung Tien hamlet		25.6	7000	179,200	179,200		Sticky rice
33	Nguyễn Văn Khẩn	Trung Tien hamlet		56.8	7000	397,600	397,600		Sticky rice
34	Trần hữu thọ	Trung Tien hamlet		46	7000	322,000	322,000		Sticky rice

35	Nguyễn Văn Tử	Trung hamlet	Tien		60	7000	420,000	420,000		Sticky rice
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Chủ sử dụng	Địa chỉ	Số lượng các loại cây (Cây)	Tổng diện tích (m ²)	Đơn giá (đồng)	Thành tiền (đồng)	Tổng tiền thực nhận (đồng)	Ký hiệu	Các loại tài sản	Giá trị
19) Trần Văn Trường	Xóm Trung Tiến		102	4.000	408.000	408.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
20) Trần Thị Hoa	Xóm Trung Tiến		78	4.000	312.000	312.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
21) Trần Văn Nhứt	Xóm Trung Tiến		114	4.000	456.000	456.000	Nhất	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
22) Nguyễn Mạnh Hùng	Xóm Trung Tiến		114	4.000	456.000	456.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
23) Nguyễn Ngọc Thái	Xóm Trung Tiến		94	4.000	376.000	376.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
24) Nguyễn Văn Thám	Xóm Trung Tiến		94	4.000	376.000	376.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
25) Nguyễn Thị Phương	Xóm Trung Tiến		114	4.000	456.000	456.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
26) Hoàng Văn Bình	Xóm Trung Tiến		94	4.000	376.000	376.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
27) Trần Thị Trường	Xóm Trung Tiến		114	4.000	456.000	456.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
28) Nguyễn Văn Hồng	Xóm Trung Tiến		96	4.000	384.000	384.000	Đã lấy	Trồng lúa trên đất lúa 1 vụ/năm	4.000 đồng/m ²
29) Trần Văn Ngọc	Xóm Trung Tiến	20		10.000	200.000		Đã lấy	Chuối chưa thu hoạch	10.000 đồng/Cây
		5		25.000	125.000			Chuối Súp thu hoạch	25.000 đồng/Cây
		3		10.000	30.000			Mít loại di chuyển được	10.000 đồng/Cây
		3		25.000	75.000	1.488.000		Ôi còn nhỏ di chuyển được	25.000 đồng/Cây
		2		25.000	50.000			Quýt còn nhỏ di chuyển được	25.000 đồng/Cây
		2		80.000	160.000			Cây bạch đàn đường kính 10-20	80.000 đồng/Cây
		10		10.000	100.000			Tre loại cây sử dụng được	10.000 đồng/Cây
			187	4.000	748.000			Cỏ voi	4.000 đồng/m ²
			94	7.000	658.000	658.000		Ngô nếp địa phương	7.000 đồng/m ²
			45,2	7.000	316.400	316.400		Ngô nếp địa phương	7.000 đồng/m ²
30) Nguyễn Thị Phương	Xóm Trung Tiến						Đã lấy		
31) Nguyễn Văn Hậu	Xóm Trung Tiến						Đã lấy		
32) Nguyễn Văn Hương	Xóm Trung Tiến						Đã lấy		
33) Nguyễn Văn Khán	Xóm Trung Tiến						Đã lấy		
34) Trần Hữu Thọ	Xóm Trung Tiến						Đã lấy		
35) Nguyễn Văn Tử	Xóm Trung Tiến		60	7.000	420.000	420.000	Đã lấy	Ngô nếp địa phương	7.000 đồng/m ²

Table of property statistics and a list of payments of households in Trung Tien hamlet, Nghi Quang commune (sheet 3)

No .	Owne r	Addres s	Numbe r of plants	The tota l are	Unit price	Into money	The total amount actually received	Sig n	Types of properties
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				a m2					
36		Trung Tien hamlet		60	5000	300,000	300000		Morning glory
37		Trung Tien hamlet		58.8	5000	294,000	294000		Morning glory
38		Trung Tien hamlet		58.4	5000	292,000	292000		Morning glory
39		Trung Tien hamlet		92	5000	460,000	460000		Morning glory
40		Trung Tien hamlet		94	5000	470,000	470000		Morning glory
41		Trung Tien hamlet		46.8	5000	234,000	234000		Morning glory
42		Trung Tien hamlet		58	5000	290,000	290000		Morning glory
43		Trung Tien hamlet		62	5000	310,000	310000		Morning glory
44		Trung Tien hamlet		54	15000	810,000	810000		tobacco plants
45		Trung Tien hamlet		68	3500	238,000	1,563,000		
			5		10000 0	500,000			
			20		10000	200,000			Bananas
			25		25000	625,000			Bananas
46			5		10000	50,000	300,000		Bananas

		Trung Tien hamlet	10		25000	250,000			Bananas
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STT	Chủ sử dụng	Địa chỉ	Số lượng các loại cây (Cây)	Tổng diện tích (m ²)	Đơn giá (đồng)	Thành tiền (đồng)	Tổng tiền thực nhận (đồng)	Ký nhận	Các loại tài sản	Ghi chú
36	Nguyễn Trường Thông	Xóm Trung Tiến		60	5.000	300.000	300.000	Đã nộp	Rau Muống	5.000 đồng/m ²
37	Trần Văn Trường	Xóm Trung Tiến		58,8	5.000	294.000	294.000	Đã nộp	Rau Muống	5.000 đồng/m ²
38	Nguyễn Đình Quên	Xóm Trung Tiến		58,4	5.000	292.000	292.000	Đã nộp	Rau Muống	5.000 đồng/m ²
39	Trần Thị Trường	Xóm Trung Tiến		62	5.000	310.000	310.000	Đã nộp	Rau Muống	5.000 đồng/m ²
40	Trần Văn Lạc	Xóm Trung Tiến		64	5.000	320.000	320.000	Đã nộp	Rau Muống	5.000 đồng/m ²
41	Trần Hữu Thọ	Xóm Trung Tiến		46,8	5.000	234.000	234.000	Đã nộp	Rau Muống	5.000 đồng/m ²
42	Nguyễn Văn Khương	Xóm Trung Tiến		58	5.000	290.000	290.000	Đã nộp	Rau Muống	5.000 đồng/m ²
43	Nguyễn Đình Dương	Xóm Trung Tiến		62	5.000	310.000	310.000	Đã nộp	Rau Muống	5.000 đồng/m ²
44	Hoàng Văn Hai	Xóm Trung Tiến		54	15.000	810.000	810.000	Đã nộp	Cây thuốc lá	15.000 đồng/m ²
				68	3.500	238.000	238.000		Cây dong riềng	3.500 đồng/m ²
45	Nguyễn Đình Toàn	Xóm Trung Tiến	5		100.000	500.000	1.563.000	Đã nộp	Đã thu hoạch được 5 năm	100.000 đồng/cây
			20		10.000	200.000			Chuối chưa thu hoạch	10.000 đồng/Cây
			25		25.000	625.000			Chuối Sáp thu hoạch	25.000 đồng/Cây
46	Nguyễn Đình Quê	Xóm Trung Tiến	5		10.000	50.000	300.000	Đã nộp	Chuối chưa thu hoạch	10.000 đồng/Cây
			10		25.000	250.000			Chuối Sáp thu hoạch	25.000 đồng/Cây
Tổng			125	3.204		19.166.570	19.166.570			

Ngày tháng năm 2018

Xóm trưởng xóm Trung Tiến

Chữ ký

Nguyễn Đình Toàn

Ngày tháng năm 2018

Công chức địa chính

Chữ ký

Nguyễn Hoàng Vinh

Ngày tháng năm 2018

Đại diện chủ đầu tư

Chữ ký

Nguyễn Văn Tường

**Table of property statistics and a list of payments of households in Dong Quyen block,
Nghị Thu ward (sheet 1)**

T T	Owner	Address	Num ber of plant s	The total area m2	Unit price	Into money	The total amount actually received	Si gn	Types of propertie s
1	Phùng bá Phượng	Dong Quyen block		316	5,000	1,580,000	1,580,000		Morning glory
2	Phùng thị hiền	Dong Quyen block		158	7,000	1,106,000	1,106,000		Sticky rice
				32	4,500	144,000	144,000		rice field land
3	Phùng Báa Khoa	Dong Quyen block		86	7,000	602,000	602,000		Sticky rice
4	Võ Văn Lượng	Dong Quyen block		335	4,500	1,507,500	1,507,500		rice field land

BẢNG THÔNG KÊ TÀI SẢN HỖ TRỢ ĐẾN BÙ DƯ ẢN NƯỚC SẠCH CỬA LÒ - NGHE AN

Địa điểm: Khối Đồng Quyền, phường Nghi Thu, thị xã Cửa Lò

Ti	Chủ sử dụng	Địa chỉ	Số lượng	Tổng diện tích (m2)	Đơn giá (đồng)	Thành tiền (đồng)	Tổng tiền thực nhận (đồng)	Ký nhận	Các loại tài sản	Ghi chú
1	Phùng Bá Phương	Khối Đồng Quyền		316	5.000	1580000	1580000	<i>[Signature]</i>	Rau muống	5.000 đồng/m2
2	Phùng Thị Hiền	Khối Cát Liêu		158	7.000	1106000	1106000	<i>[Signature]</i>	Ngô nếp ta	7.000 đồng/m2
				32	4.500	144000	144000		Lạc	4.500 đồng/m2
3	Phùng Bá Khoa	Khối Cát Liêu		86	7.000	602000	602000	<i>[Signature]</i>	Ngô nếp ta	7.000 đồng/m2
4	Võ Văn Lương	Khối Hiếu Hạc		335	4.500	1507500	1507500	<i>[Signature]</i>	Lúa 2 vụ	4.500 đồng/m2
Tổng:				895			4.939.500			

Ngày tháng năm 2018 Ngày tháng năm 2018 Ngày tháng năm 2018

Đại diện chủ đầu tư

Chủ tịch UBND Phường

Công chức địa chính

Khối trưởng

Đồng Quyền Hiếu Hạc Cát Liêu
[Signature]
 Phùng Bá Phương
 Hoàng Bá Khoa
[Signature]
 Lê Tài Hạc



Table of property statistics and a list of payments of households in Hoa Dinh, Nghi Thu ward (sheet 1)

N o.	Owner	Address	Num ber of plant s	Th e tot al are a m2	Unit price	Into money	The total amount actually received	Si gn	Types of propertie s
1	Nguyễn Thị Hải	Hoa Dinh, Nghi Thu ward		30.6	5,000	153,000	153,000		Morning glory
2	Phùng Thị Hoa	Hoa Dinh, Nghi Thu ward		45	5,000	225,000	225,000		Morning glory
3	Nguyễn Thị Thê	Hoa Dinh, Nghi Thu ward		21	5,000	105,000	105,000		Morning glory
4	Phùng Bá Viên	Hoa Dinh, Nghi Thu ward		33	5,000	165,000	165,000		Morning glory
5	Hoàng Thị Cúc	Hoa Dinh, Nghi Thu ward		39	5,000	195,000	195,000		Morning glory
6	Hoàng Thị Nam	Hoa Dinh, Nghi Thu ward		30	5,000	150,000	150,000		Morning glory
7	Cao Thị Hiền	Hoa Dinh, Nghi Thu ward		27	5,000	135,000	135,000		Morning glory
8	Hoàng Thị Tam	Hoa Dinh, Nghi Thu ward		27	5,000	135,000	135,000		Morning glory
9	Hoàng Thị Hương	Hoa Dinh, Nghi Thu ward		27	5,000	135,000	135,000		Morning glory
10	Nguyễn Thị Phương	Hoa Dinh, Nghi Thu ward		27	5,000	135,000	135,000		Morning glory
11	Lê Thanh Nghị	Hoa Dinh, Nghi Thu ward	4		25,000	100,000	100,000		Banana
	Tổng		4	306.6			1,653,000		



BẢNG THÔNG KÊ TÀI SẢN HỖ TRỢ ĐẾN BÙ DỰ ÁN NƯỚC SẠCH CỬA LÒ - NGHỆ AN
 Địa điểm: Khốí Hoà Đĩnh, phường Nghi Thu, thị xã Cửa Lò

Tt	Chủ sử dụng	Địa chỉ	Số lượng	Tổng diện tích (m ²)	Đơn giá (đồng)	Thành tiền (đồng)	Tổng tiền thực nhận (đồng)	Ký nhận	Các loại tài sản	Ghi chú
1	Nguyễn Thị Hải	Khốí Hoà Đĩnh		30.6	5,000	153000	153000	<i>Hải</i>	Rau muống	5,000 đồng/m ²
2	Phùng Thị Hoa Lê Thị Hải Nguyễn Thị Xuân	Khốí Hoà Đĩnh		45	5,000	225000	225000	<i>thái</i>	Rau muống	5,000 đồng/m ²
3	N Thị Trà Giang Nguyễn Thị Thế	Khốí Hoà Đĩnh		21	5,000	105000	105000	<i>thái</i>	Rau muống	5,000 đồng/m ²
4	Phùng Bá Viên	Khốí Hoà Đĩnh		33	5,000	165000	165000	<i>thái</i>	Rau muống	5,000 đồng/m ²
5	Hoàng Thị Cúc	Khốí Hoà Đĩnh		39	5,000	195000	195000	<i>thái</i>	Rau muống	5,000 đồng/m ²
6	Hoàng Thị Nam Hoàng Thị Tiếp	Khốí Hoà Đĩnh		30	5,000	150000	150000	<i>thái</i>	Rau muống	5,000 đồng/m ²
7	<i>thái</i> Nguyễn Thị Hải Cao Thị Hiền	Khốí Hoà Đĩnh		27	5,000	135000	135000	<i>Hải</i>	Rau muống	5,000 đồng/m ²
8	Hoàng Thị Tam Chế Thị Thái Hoàng Thị Thanh	Khốí Hoà Đĩnh		27	5,000	135000	135000	<i>Thái</i>	Rau muống	5,000 đồng/m ²
9	Hoàng Thị Hương Hoàng Minh Nhật	Khốí Hoà Đĩnh		27	5,000	135000	135000	<i>Hải</i>	Rau muống	5,000 đồng/m ²

10	Nguyễn Thị Phương	Khởi Hoà Đình	27	5.000	135000	135000	Rau muống	5.000 đồng/m ²
11	Lê Thanh Nghị	Khởi Hoà Đình	4	30.000	120000	120000	Chuối chưa thu hoạch	30.000 đồng/bụi
Tổng:			4	306.6		1.653.000		

Ngày tháng 4 năm 2018 Ngày 5 tháng 5 năm 2018 Ngày tháng năm 2018

Khởi trường Hoà Đình

Công chức địa chính

Chủ tịch UBND Phường

Đại diện chủ đầu tư

Phạm Bz Sơn

Lê Thị Hoà



PHƯỜNG TRỌNG THỌ

Appendix 3: results of analysis of environmental samples during construction phase

Sample analysis results of the 3rd quarter

The results of analysis of air samples (k1, k2, k3) of the 3rd quarter of 2018

Laboratory: Phuong Nam Center for environmental analysis and measurement.



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 294/PHUONGNAM/2018

1. Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
 2. Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
 3. Địa điểm lấy mẫu: Khu vực dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An
 3. Loại mẫu: Mẫu không khí, tiếng ồn
 4. Vị trí lấy mẫu:
 - + Khu vực đường Nguyễn Sinh Cung
 - + Khu vực đường Nguyễn Huệ
 - + Khu vực đường Mai Thúc Loan
 5. Ngày lấy mẫu: 12/09/2018
- Kí hiệu: Tọa độ:
- KK1 X: 2078456; Y: 601044
 KK2 X: 2079042; Y: 602877
 KK3 X: 2079131; Y: 602965
- Ngày trả kết quả: 25/09/2018

TT	Thông số	ĐVT	Phương pháp thử	Kết quả			QCVN 05:2013/BTNMT
				K1	K2	K3	
1	Nhiệt độ	°C	QCVN 46:2012/BTNMT	30	30,8	30,5	-
2	Độ ẩm	%	QCVN 46:2012/BTNMT	75	78	72	-
3	Áp suất khí quyển	atm	HD81-PPDN-ASKK	554	582	575	-
4	Vận tốc gió	m/s	QCVN 46:2012/BTNMT	0,5	0,4	0,4	-
5	Hướng gió	-	GPS 64s	ĐN	ĐN	ĐN	-
6	Bụi tổng số (TSP)*	µg/m ³	TCVN 5067:1995	202	188	181	300
7	CO	µg/m ³	HD24-PPT-CO	398 0	4122	3914	30000
8	SO ₂	µg/m ³	TCVN 5971:1995	192	181	187	350
9	NO ₂	µg/m ³	TCVN 6137:2009	162	151	174	200
10	Tiếng ồn	dBA	TCVN 7878-2:2010	65	67	62	70 ⁽¹⁾

Ghi chú:

"-" Tức là không quy định;

- QCVN 05:2013/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng không khí xung quanh.

- ⁽¹⁾: QCVN 26:2010/BTNMT: Quy chuẩn kỹ thuật quốc gia về tiếng ồn.

- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

- Không được trích sao một phần kết quả này nếu không được sự đồng ý của PTN.

Trưởng phòng phân tích


 Nguyễn Thị Xuân

KT. Giám đốc Trung tâm
 Phó Giám Đốc


 Nguyễn Thị Duyên

The results of analysis of air samples (k4, k5, k6, k7) of the 3rd quarter of 2018
Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 295.../PHUONGNAM/2018

- Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
- Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
- Địa điểm lấy mẫu: Khu vực dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
- Loại mẫu: Mẫu không khí, tiếng ồn
- Vị trí lấy mẫu:
 - + Tại đường Bình Minh (đối diện khách sạn Bạt Tới)
 - + Tại đường Bình Minh (đối diện KS Sài Gòn – Kim Liên)
 - + Tại trạm bơm tăng áp, gần đường Sào Nam
 - + Khu vực Nhà máy nước Nghi Hòa
- Ngày lấy mẫu: 12/09/2018

Kí hiệu: Tọa độ:
 KK4 X: 2078428 ; Y: 601032
 KK5 X: 2079017; Y: 602885
 KK6 X: 2078904; Y: 600476
 KK7 X: 2080285; Y: 591345

Ngày trả kết quả: 27/09/2018

TT	Thông số	DVT	Phương pháp thử	Kết quả				QCVN 05:2013/BTNMT T
				KK4	KK5	KK6	KK7	
1	Nhiệt độ	°C	QCVN 46:2012/BTNMT	31	30,6	30	30,2	-
2	Độ ẩm	%	QCVN 46:2012/BTNMT	77	79	79,2	78,5	-
3	Áp suất khí quyển	atm	HD81-PPDN- ASKK	566	572	574	560	-
4	Vận tốc gió	m/s	QCVN 46:2012/BTNMT	0,55	0,6	0,52	0,5	-
5	Hướng gió	-	GPS 64s	ĐN	ĐN	ĐN	ĐN	-
6	Bụi tổng số (TSP)*	µg/m ³	TCVN 5067:1995	207	191	184	180	300
7	CO	µg/m ³	HD24-PPT-CO	3910	3944	3878	3820	30000
8	SO ₂	µg/m ³	TCVN 5971:1995	208	191	178	182	350
9	NO ₂	µg/m ³	TCVN 6137:2009	142	159	127	133	200
10	Tiếng ồn	dBA	TCVN 7878- 2:2010	62	63	66	64	70 ⁽¹⁾

Ghi chú:

"-" Tức là không quy định;

- QCVN 05:2013/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng không khí xung quanh.

- ⁽¹⁾: QCVN 26:2010/BTNMT: Quy chuẩn kỹ thuật quốc gia về tiếng ồn.

- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

Trưởng phòng phân tích


Nguyễn Thị Xuân

**KT.Giám đốc Trung tâm
Phó Giám Đốc**


Nguyễn Thị Duyên

The analysis results of surface water samples (NM1, NM2, NM3) of the 3rd quarter of 2018

Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 292.../PHUONGNAM/2018

1. Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
2. Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
3. Địa điểm lấy mẫu: Khu vực Dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
3. Loại mẫu: Mẫu nước mặt
4. Vị trí lấy mẫu: Nước mặt trên cầu Phương Tích (điểm 1)
Nước mặt trên cầu Phương Tích (điểm 2)
Nước mặt ở sông Rao Trường
5. Ngày lấy mẫu: 12/09/2018
- Kí hiệu: Tọa độ:
NM1 X: 2080175; Y: 591458
NM2 X: 2079981; Y: 591657
NM3 X: 2077848; Y: 595975
Ngày trả kết quả: 26/09/2018

TT	Thông số	DVT	Phương pháp thử	Kết quả			QCVN 08-MT:2015/ BTNMT
				NM1	NM2	NM3	
1	pH	Thang pH	TCVN 6492:2011	7,2	7,1	7,4	5,5-9
2	DO	mg/l	TCVN 7325:2016	5,8	5,5	4,75	≥4
3	COD	mg/l	SMEWW 5220C:2012	28,5	27,2	22,7	30
4	BOD ₅ (20°C)	mg/l	TCVN 6001:2008	13,7	11,2	13,4	15
5	TSS	mg/l	TCVN 6625:2000	47,2	44,6	44,9	50
6	NH ₄ ⁺	mg/l	EPA Method 350.2	0,45	0,53	0,61	0,9
7	NO ₃ ⁻	mg/l	SMEWW 4500-NO ₃ ⁻ .E:2012	4,7	5,5	5,91	10
8	NO ₂ ⁻	mg/l	TCVN 6178:1996	0,017	0,031	0,046	0,05
9	PO ₄ ³⁻	mg/l	TCVN 6202:2008	0,12	0,15	0,24	0,3
10	Dầu mỡ	mg/l	SMEWW 5520B:2012	0,7	0,64	0,72	1
11	Coliform	MPN/100 ml	TCVN 6187-2:2009	4.900	4700	4700	7.500

Ghi chú:

"-" Tức là không quy định;

- QCVN 08-MT:2015/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng nước mặt.

- Cột B1: Dùng cho mục đích tưới tiêu, thủy lợi hoặc các mục đích sử dụng khác có yêu cầu chất lượng nước tương tự hoặc các mục đích sử dụng như loại B2.

- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

Trưởng phòng phân tích


Nguyễn Thị Xuân

**KT.Giám đốc Trung tâm
Phó Giám Đốc**


Nguyễn Thị Duyên

The analysis results of surface water samples (NM4, NM5, NM6) of the 3rd quarter of 2018

Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**
Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 292...../PHUONGNAM/2018

1. Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
2. Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
3. Địa điểm lấy mẫu: Khu vực Dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
3. Loại mẫu: Mẫu nước mặt
4. Vị trí lấy mẫu: Nước mặt tại Sông Cấm
Nước mặt tại ao hồ phường Nghi Hương
Nước mặt ao hồ xã Nghi Khánh
5. Ngày lấy mẫu: 12/09/2018

Kí hiệu: Tọa độ:
NM4 X: 2085195; Y: 594926
NM5 X: 2078916; Y: 602599
NM6 X: 2080244; Y: 599749

Ngày trả kết quả: 27/09/2018

TT	Thông số	DVT	Phương pháp thử	Kết quả			QCVN 08-MT:2015/ BTNMT
				NM4	NM5	NM6	
1	pH	Thang pH	TCVN 6492:2011	7,5	7,2	7,6	5,5-9
2	DO	mg/l	TCVN 7325:2016	4,7	5,2	4,9	≥4
3	COD	mg/l	SMEWW 5220C:2012	26,8	24,5	25,5	30
4	BOD ₅ (20°C)	mg/l	TCVN 6001:2008	14,1	13,8	12,2	15
5	TSS	mg/l	TCVN 6625:2000	46,3	44,8	46,7	50
6	NH ₄ ⁺	mg/l	EPA Method 350.2	0,51	0,48	0,55	0,9
7	NO ₃ ⁻	mg/l	SMEWW 4500-NO ₃ ⁻ E:2012	5,5	4,8	4,2	10
8	NO ₂ ⁻	mg/l	TCVN 6178:1996	0,032	0,028	0,037	0,05
9	PO ₄ ³⁻	mg/l	TCVN 6202:2008	0,22	0,16	0,19	0,3
10	Dầu mỡ	mg/l	SMEWW 5520B:2012	0,61	0,68	0,54	1
11	Coliform	mg/l	TCVN 6187-2:2009	4.900	4500	4800	7.500

Ghi chú:

- “...” Tức là không quy định;
- QCVN 08-MT:2015/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng nước mặt.
- Cột B1: Dùng cho mục đích tưới tiêu, thủy lợi hoặc các mục đích sử dụng khác có yêu cầu chất lượng nước tương tự hoặc các mục đích sử dụng như loại B2.
- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

Trưởng phòng phân tích

Nguyễn Thị Xuân

KT.Giám đốc Trung tâm
Phó Giám Đốc

Nguyễn Thị Duyên

The results of vibration measurement results (R1; R2; R3; R4) of the 3rd quarter of 2018
Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 246.../PHUONGNAM/2018

1. Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
2. Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
3. Địa điểm lấy mẫu: Khu vực dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
3. Loại mẫu: Độ rung
4. Vị trí lấy mẫu:
+ Tại Cầu phươg Tích (tuyến ống truyền tải)
+ Tại Cầu Rao Trường (tuyến ống truyền tải)
+ Tại đường Sào Nam (tuyến phân phối)
+ Tại đường Bình Minh (tuyến phân phối)
5. Ngày lấy mẫu: 12/09/2018

Kí hiệu: Tọa độ:
R1 X: 2078017; Y: 591456
R2 X: 2077846; Y: 595972
R3 X: 2080282; Y: 591340
R4 X: 2079230; Y: 603300

Ngày trả kết quả: 26/09/2018

TT	Thông số	DVT	Phương pháp	Kết quả				QCVN 27:2010/BTNMT
				R1	R2	R3	R4	
1	Độ rung	dB	TCVN 6963:2001	71	70	66	68	75

Ghi chú:

"-" Tức là không quy định;

- QCVN 27:2010/BTNMT: Quy chuẩn kỹ thuật quốc gia về độ rung.

- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

- Không được trích sao một phần kết quả này nếu không được sự đồng ý của PTN.

Trưởng phòng phân tích

Nguyễn Thị Xuân

KT.Giám đốc Trung tâm
Phó Giám Đốc

Nguyễn Thị Duyên

Sample analysis results of the 4th quarter

The results of analysis of air samples (k1, k2, k3) of the 4th quarter of 2018
Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 427/PHUONGNAM/2018

1. Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
 2. Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
 3. Địa điểm lấy mẫu: Khu vực dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
 3. Loại mẫu: Mẫu không khí, tiếng ồn
 4. Vị trí lấy mẫu:
 - + Khu vực đường Nguyễn Sinh Cung
 - + Khu vực đường Nguyễn Huệ
 - + Khu vực đường Mai Thúc Loan
 5. Ngày lấy mẫu: 02/11/2018
- Kí hiệu: Tọa độ:
 KK1 X: 2078456; Y: 601044
 KK2 X: 2079042; Y: 602877
 KK3 X: 2079131; Y: 602965
 Ngày trả kết quả: 14/11/2018

TT	Thông số	ĐVT	Phương pháp thử	Kết quả			QCVN 05:2013/BTNMT
				KK1	KK2	KK3	
1	Nhiệt độ	°C	QCVN 46:2012/BTNMT	24	25	25	-
2	Độ ẩm	%	QCVN 46:2012/BTNMT	88	86	86	-
3	Áp suất khí quyển	atm	HD81-PPDN-ASKK	525	508	554	-
4	Vận tốc gió	m/s	QCVN 46:2012/BTNMT	3,5	3.8	4.2	-
5	Hướng gió	-	GPS 64s	ĐB	ĐB	ĐB	-
6	Bụi tổng số (TSP)*	µg/m ³	TCVN 5067:1995	187	165	168	300
7	CO	µg/m ³	HD24-PPT-CO	3720	3880	3650	30000
8	SO ₂	µg/m ³	TCVN 5971:1995	202	178	199	350
9	NO ₂	µg/m ³	TCVN 6137:2009	155	142	157	200
10	Tiếng ồn	dBA	TCVN 7878-2:2010	66	62	61	70 ⁽¹⁾

Ghi chú:

"-" Tức là không quy định;

- QCVN 05:2013/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng không khí xung quanh.

- ⁽¹⁾: QCVN 26:2010/BTNMT: Quy chuẩn kỹ thuật quốc gia về tiếng ồn.

- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

- Không được trích sao một phần kết quả này nếu không được sự đồng ý của PTN.

Trưởng phòng phân tích


Nguyễn Thị Xuân

**KT.Giám đốc Trung tâm
Phó Giám Đốc**


Nguyễn Thị Duyên

The results of analysis of air samples (k4, k5, k6, k7) of the 4th quarter of 2018
Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 012 /PHUONGNAM/2018

- Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
- Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
- Địa điểm lấy mẫu: Khu vực dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
- Loại mẫu: Mẫu không khí, tiếng ồn
- Vị trí lấy mẫu:
 - + Tại đường Bình Minh (đối diện khách sạn Bạt Tới)
 - + Tại đường Bình Minh (đối diện KS Sài Gòn – Kim Liên)
 - + Tại trạm bơm tăng áp, gần đường Sào Nam
 - + Khu vực Nhà máy nước Nghi Hòa
- Ngày lấy mẫu: 02/11/2018

Kí hiệu: Tọa độ:
 KK4 X: 2078428 ; Y: 601032
 KK5 X: 2079017; Y: 602885
 KK6 X: 2078904; Y: 600476
 KK7 X: 2080285; Y: 591345

Ngày trả kết quả: 14/11/2018

TT	Thông số	DVT	Phương pháp thử	Kết quả				QCVN 05:2013/BTNM T
				KK4	KK5	KK6	KK7	
1	Nhiệt độ	°C	QCVN 46:2012/BTNMT	25	25.2	24.4	24	-
2	Độ ẩm	%	QCVN 46:2012/BTNMT	82	85	79	81	-
3	Áp suất khí quyển	atm	HD81-PPDN- ASKK	505	528	534	517	-
4	Vận tốc gió	m/s	QCVN 46:2012/BTNMT	2,5	2,8	3,2	2,7	-
5	Hướng gió	-	GPS 64s	ĐB	ĐB	ĐB	ĐB	-
6	Bụi tổng số (TSP)*	µg/m ³	TCVN 5067:1995	171	165	182	172	300
7	CO	µg/m ³	HD24-PPT-CO	3550	3720	3775	3844	30000
8	SO ₂	µg/m ³	TCVN 5971:1995	221	181	191	167	350
9	NO ₂	µg/m ³	TCVN 6137:2009	148	150	132	115	200
10	Tiếng ồn	dBA	TCVN 7878- 2:2010	64	65	63	64	70 ⁽¹⁾

Ghi chú:

- "-" Tức là không quy định;
- QCVN 05:2013/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng không khí xung quanh.
- (1): QCVN 26:2010/BTNMT: Quy chuẩn kỹ thuật quốc gia về tiếng ồn.
- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

Trưởng phòng phân tích

Nguyễn Thị Xuân

**KT.Giám đốc Trung tâm
Phó Giám Đốc**

Nguyễn Thị Duyên

The analysis results of surface water samples (NM1, NM2, NM3) of the 4th quarter of 2018

Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 415...../PHUONGNAM/2018

1. Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
2. Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
3. Địa điểm lấy mẫu: Khu vực Dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
3. Loại mẫu: Mẫu nước mặt
4. Vị trí lấy mẫu:
 - Nước mặt trên cầu Phương Tích (điểm 1)
 - Nước mặt trên cầu Phương Tích (điểm 2)
 - Nước mặt ở sông Rao Trường
5. Ngày lấy mẫu: 02/11/2018

Kí hiệu: Tọa độ:
 NM1 X: 2080175; Y: 591458
 NM2 X: 2079981; Y: 591657
 NM3 X: 2077848; Y: 595975

Ngày trả kết quả: 14/11/2018

TT	Thông số	ĐVT	Phương pháp thử	Kết quả			QCVN 08-MT:2015/ BTNMT
				NM1	NM2	NM3	
1	pH	Thang pH	TCVN 6492:2011	7,5	7,4	7,2	5,5-9
2	DO	mg/l	TCVN 7325:2016	6,2	5,8	5,5	≥4
3	COD	mg/l	SMEWW 5220C:2012	22,5	25,8	24,2	30
4	BOD ₅ (20°C)	mg/l	TCVN 6001:2008	12,8	14,4	11,7	15
5	TSS	mg/l	TCVN 6625:2000	42,5	38,2	44,4	50
6	NH ₄ ⁺	mg/l	EPA Method 350.2	0,52	0,58	0,46	0,9
7	NO ₃ ⁻	mg/l	SMEWW 4500-NO ₃ -E:2012	6,2	6,8	5,5	10
8	NO ₂ ⁻	mg/l	TCVN 6178:1996	0,025	0,047	0,021	0,05
9	PO ₄ ³⁻	mg/l	TCVN 6202:2008	0,18	0,11	0,2	0,3
10	Dầu mỡ	mg/l	SMEWW 5520B:2012	0,55	0,52	0,70	1
11	Coliform	MPN/100 ml	TCVN 6187-2:2009	4.800	4600	4900	7.500

Ghi chú:

- " " Tức là không quy định;
- QCVN 08-MT:2015/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng nước mặt.
- Cột B1: Dùng cho mục đích tưới tiêu, thủy lợi hoặc các mục đích sử dụng khác có yêu cầu chất lượng nước tương tự hoặc các mục đích sử dụng như loại B2.
- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

Trưởng phòng phân tích


 Nguyễn Thị Xuân

**KT.Giám đốc Trung tâm
Phó Giám Đốc**


 Nguyễn Thị Duyên

The analysis results of surface water samples (NM4, NM5, NM6) of the 4th quarter of 2018

Laboratory: Phuong Nam Center for environmental analysis and measurement.



TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC MÔI TRƯỜNG PHƯƠNG NAM

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 016 /PHUONGNAM/2018

- Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
- Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
- Địa điểm lấy mẫu: Khu vực Dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
- Loại mẫu: Mẫu nước mặt
- Vị trí lấy mẫu:
 - Nước mặt tại Sông Cấm
 - Nước mặt tại ao hồ phường Nghi Hương
 - Nước mặt ao hồ xã Nghi Khánh
- Ngày lấy mẫu: 02/11/2018

Kí hiệu: Tọa độ:
 NM4 X: 2085195; Y: 594926
 NM5 X: 2078916; Y: 602599
 NM6 X: 2080244; Y: 599749

Ngày trả kết quả: 14/11/2018

TT	Thông số	DVT	Phương pháp thử	Kết quả			QCVN 08-MT:2015/ BTNMT
				NM4	NM5	NM6	
1	pH	Thang pH	TCVN 6492:2011	7,4	7,6	7,5	5,5-9
2	DO	mg/l	TCVN 7325:2016	4,2	5,7	4,5	≥4
3	COD	mg/l	SMEWW 5220C:2012	21,2	27,5	24,5	30
4	BOD ₅ (20°C)	mg/l	TCVN 6001:2008	12,1	13,4	13,9	15
5	TSS	mg/l	TCVN 6625:2000	41,4	38,4	48,2	50
6	NH ₄ ⁺	mg/l	EPA Method 350.2	0,41	0,59	0,5	0,9
7	NO ₃ ⁻	mg/l	SMEWW 4500-NO ₃ ⁻ E:2012	6,9	4,4	4,8	10
8	NO ₂ ⁻	mg/l	TCVN 6178:1996	0,039	0,031	0,045	0,05
9	PO ₄ ³⁻	mg/l	TCVN 6202:2008	0,27	0,12	0,22	0,3
10	Dầu mỡ	mg/l	SMEWW 5520B:2012	0,77	0,57	0,61	1
11	Coliform	mg/l	TCVN 6187-2:2009	5.200	4.900	4.700	7.500

Ghi chú:

"-" Tức là không quy định;

- QCVN 08-MT:2015/BTNMT: Quy chuẩn kỹ thuật quốc gia về chất lượng nước mặt.

- Cột B1: Dùng cho mục đích tưới tiêu, thủy lợi hoặc các mục đích sử dụng khác có yêu cầu chất lượng nước tương tự hoặc các mục đích sử dụng như loại B2.

- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.

Trưởng phòng phân tích


Nguyễn Thị Xuân

KT.Giám đốc Trung tâm
Phó Giám Đốc


Nguyễn Thị Duyên

The results of vibration measurement results (R1; R2; R3; R4) of the 4th quarter of 2018
Laboratory: Phuong Nam Center for environmental analysis and measurement.



**TRUNG TÂM PHÂN TÍCH VÀ ĐO ĐẠC
MÔI TRƯỜNG PHƯƠNG NAM**

Địa chỉ: Số 15 Đoàn Thị Điểm- Phường 4 - Tp. Vũng Tàu.
Điện Thoại: 0254.3563356 Fax: 0254.3563363



PHIẾU KẾT QUẢ PHÂN TÍCH

Số: 419/PHUONGNAM/2018

1. Khách hàng: Công ty Cổ phần tư vấn đầu tư và Môi trường VINAGREEN
2. Địa chỉ: LK 18, khu đô thị Hadico 30, xóm 20, xã Nghi Phú, Tp Vinh, Nghệ An
3. Địa điểm lấy mẫu: Khu vực dự án nâng cấp, mở rộng hệ thống cấp nước thị xã Cửa Lò, tỉnh Nghệ An.
3. Loại mẫu: Độ rung
4. Vị trí lấy mẫu:
 - + Tại Cầu phươg Tích (tuyến ống truyền tải)
 - + Tại Cầu Rao Trường (tuyến ống truyền tải)
 - + Tại đường Sào Nam (tuyến phân phối)
 - + Tại đường Bình Minh (tuyến phân phối)
5. Ngày lấy mẫu: 02/11/2018

Kí hiệu: Tọa độ:
 R1 X: 2078017; Y: 591456
 R2 X: 2077846; Y: 595972
 R3 X: 2080282; Y: 591340
 R4 X: 2079230; Y: 603300

Ngày trả kết quả: 12/11/2018

TT	Thông số	ĐVT	Phương pháp	Kết quả				QCVN 27:2010/BTNMT
				R1	R2	R3	R4	
1	Độ rung	dB	TCVN 6963:2001	70	72	68	69	75

Ghi chú:

- " - " Tức là không quy định;
- QCVN 27:2010/BTNMT: Quy chuẩn kỹ thuật quốc gia về độ rung.
- Kết quả chỉ có giá trị đối với mẫu thử nghiệm.
- Không được trích sao một phần kết quả này nếu không được sự đồng ý của PTN.

Trưởng phòng phân tích

Nguyễn Thị Xuân

KT.Giám đốc Trung tâm
Phó Giám Đốc

Nguyễn Thị Duyên