

# Environmental Monitoring Report

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Semi-annual Report (January – June 2020)

March 2021

## Viet Nam: Water Sector Investment Program - Tranche 2

### Hue province

Prepared by Thua Thien Hue Water Supply Joint Stock Company for the Thua Thien Hue Provincial People's Committee and the Asian Development Bank.

## **VIETNAM WATER SECTOR INVESTMENT PROGRAM- TRANCHE 2**

{ ADB Loan No. 2961-VIE (SF) }

### **Environmental Monitoring Report**

**JANUARY – JUNE 2020**

### **WATER SECTOR INVESTMENT PROGRAM (TRANCHE 2) - THUA THIEN HUE WATER SUPPLY SUBPROJECT**

Prepared by

**Thua Thien Hue Water Supply Joint Stock Company (HueWACO)**

**With support of Contract Management and Construction Supervision Consultant**  
Joint Venture of HaskoningDHV Nederland B.V (the Netherlands) and HaskoningDHV Vietnam  
Co., Ltd  
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## **NOTE**

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## **Preface**

The Government of Vietnam and the Asian Development Bank (ADB) have agreed to implement the Viet Nam Water Sector Investment Program – Multi-tranche Financing Facility (MFF) - Periodic Financing Request 2 scheduled to be completed by December 31, 2019. In this tranche, six (06) water supply projects will be funded in Hai Phong, Quang Tri, Thua Thien Hue, Da Nang, Dak Lak, and Binh Duong provinces.

The Loan Agreement was signed on May 23, 2013. On September 9, 2016, Thua Thien Hue Water Supply Joint Stock Company, formerly known as Thua Thien Hue Construction and Water Supply State One Member Limited Company, signed a Consulting Services Contract for contract management and construction supervision with Joint Venture of Haskoning DHV Nederland B.V (the Netherlands) and Haskoning DHV Vietnam Co., Ltd (CMCS Consultant).

This Environmental Monitoring Report from January - June 2020 covers the main findings of the monitoring of safeguard issues of Project's activities carried out during the reporting period from July 2020 to the end of the year.

## List of Abbreviations

<b>ADB</b>	Asian Development Bank
<b>CEMP</b>	Contractor Environmental Management Plan
<b>CMCS</b>	Contract Management and Construction Supervision
<b>DED</b>	Detail Engineering Design
<b>DoNRE</b>	Department of Natural Resource and Environment
<b>EA</b>	Executive Agency
<b>EIA</b>	Environmental Impact Assessment
<b>EMoP</b>	Environmental Monitoring Plan
<b>EMP</b>	Environmental Management Plan
<b>EO</b>	Environmental Officer
<b>GoV</b>	Government of Vietnam
<b>GRM</b>	Grievance Redress Mechanism
<b>HueWACO</b>	Thua Thien Hue Water Supply Joint Stock Company
<b>IA</b>	Implementing Agency
<b>IEE</b>	Initial Environmental Examination
<b>MFF</b>	Multitranchise Financing Facility
<b>OHS</b>	Occupational Health and Safety
<b>PO</b>	Project Owner
<b>PPC</b>	Provincial People's Committee
<b>PPMS</b>	Project Performance Monitoring System
<b>PMU</b>	Project Management Unit
<b>Project</b>	Vietnam Water Sector Investment Program- Tranche 2
<b>SF</b>	Study Feasibility
<b>Subproject</b>	Thua Thien Hue Water Supply Project
<b>UXO</b>	Unexploded Ordnance
<b>VND</b>	Vietnam Dong
<b>WSC</b>	Water Supply Company
<b>WTP</b>	Water Treatment Plant

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## 1 EXECUTIVE SUMMARY

1. In the water supply tranche-2 subproject located in Thua Thien Hue Province. There are around 700km water pipe with 159 pipelines will be built in Phong Dien, Tu Ha, Loc An, Loc Bon, Hue and surrounding areas. In the reporting period, from January to June 2020, all of three construction packages were completed construction. Implemented volume at the end of the reporting period is accomplishment 158 of total 159 pipeline with the length is 678.197m, less than 21.639m in comparison with the contract of the parties. There are more 425m of pipeline under HU-CW05 package were constructed in this reporting period.

- **Safeguard Plan Implementation Arrangement:** Roles and responsibilities of related organizations of EA, IA, PMU, CMCS as well as environmental institutes were identified.
- **Monitoring activities in the report:**
  - EMP were carried out by Contractor, PMU, and CMCS.
  - Compliance with the requirement in the updated EMP was implemented and monitored. There is not any issues require further actions.
- **Environmental impact monitoring:**
  - The environmental effect monitoring action was not carried out in this reporting period. Anyhow, there was not any complain on air pollution or noise as well as surface water quality from construction works of the contractors.
- **Safeguard compliance issue:** Compliance with environmental safety under the Loan Agreement was guaranteed
- **Information disclosure and capacity building**
  - The PMU continue implementing communication on water pipeline installation for households using as well as benefit of clean water, improving public health and sanitation, minimizing pollution of the living environment to communes where water pipeline is installed. Besides, SEMR of the last year 2019 was also mentioned through the PMU communication on benefit of clean water, improving public health and sanitation to the local people in the project area.
- **Key activities planned in the next reporting period**
  - The PMU and the CMCS have to supervise activities on site clean-up and ground restoration of worker camps and handing over hazardous waste (grease, oil, welding rod) of the contractors to storage of their company and disposal it as regulation.

## 2 PROJECT OVERVIEW, GENERAL SAFEGUARD ISSUES

### 2.1 INTRODUCTION

2. The water supply tranche-2 subproject located in Thua Thien Hue Province (subproject) is one of the six tranche-2 subprojects of Viet Nam Water Sector Investment Program to be implemented under the Loan Agreement No. 2961 - VIE (SF) between Socialist Republic of Vietnam (GoV) and Asian Development Bank (ADB).

3. The implementation of the Project will (a) increase service coverage areas of WSCs; (b) improve WSCs' business planning, financial management, and asset management; and (c) reduce non-revenue water, through the implementation of prepared sub-projects.

4. Under the Loan Agreement, the sub-project consists of (i) constructing a WTP with approximately 8,000m<sup>3</sup>/day; (ii) constructing approximately 40km transmission pipelines of D400-1,200; and (iii) constructing approximately 378 km distribution pipelines.

5. By AIDE MEMOIRE on MFF0054 - L2961-VIE: HUE WATER SUPPLY PROJECT LOAN REVIEW MISSION on March 16, 2015, ADB agreed on the following scope of work changes for the subproject:

6. An amount of the loan which was initially earmarked for Phong Dien WTP, the D800 - 1000 Dien Bien Phu — Dong Da transmission pipelines and D500 Hue - Phu Bai pipelines under works and goods contracts has been reallocated to increase funding for the transmission and distribution network in the same project areas of Phong Dien, Tu Ha, Loc An, Loc Bon, and Hue city, also under civil works contracts. **The total length of the network was increased from 418 km to approximately 700 km.** The Mission reviewed the site locations and agreed that no resettlement activities anticipated. The adjusted works were agreed in 2015 and uEMP was updated and approved.

7. Therefore, the final components of the sub-project are:

Area 1: Phong Dien water supply area (150 km pipelines, D50-D500)

Area 2: Tu Ha water supply area (90 km pipelines, D50-D500)

Area 3: Water supply area of Hue city and surrounding areas (140 km of pipelines, D50-D1200)

Area 4: Loc Bon water supply area (230 km pipelines, D50-D600)

Area 5: Loc An water supply (100 km pipelines, D50-D400)

8. In accordance with the Loan Agreement, the Thua Thien Hue Subproject needs to adhere to the preparation of semi-annual safeguard monitoring reports. The first semi-annual report for the components of the Thua Thien Hue Subproject was in the second half of the year 2017. Three semi-annual reports were submitted to and approved by ADB. By agreement with ADB, this report will cover environmental issues of the component from January 2020 to June 2020.

9. There are 03 construction packages and 01 consulting services contracts with details as in the table below.

**Table 1: Summary of names and codes of the civil work packages to be used in the Report**

No.	Name of Packages	Code
1	Provide and install a ductile-iron pipeline system and fittings with diameters D400 to D1200	HUE – CW03
2	Provide and install an HDPE pipeline system and fittings in Phong Dien, Tu Ha, and Hue City	HUE – CW05
3	Provide and install an HDPE pipeline system and fittings in Loc An and Loc Bon	HUE – CW06
4	Contract management and construction supervision package	HUE – CS01

## 2.2 PROJECT PROGRESS

### 2.2.1 Construction packages:

10. Three construction packages HUE – CW03, HUE – CW05 and HUE – CW06 were completed construction and handed over in December 2019. Anyhow, in the Q1 2020, only 425m / 5,005m of additional pipelines of Hue-CW05 were installed (pre-approved construction of the pipeline part through shrimp ponds with the agreement between 3 affected households and PMU is that the construction is implemented during gap time between 02 harvests, the pond is suspended for aquaculture). Detail of each package is presented below:



***HUE – CW03 Package:***

11. In this reporting period, there was no construction activities of HUE-CW03 because this package was completed and handed over in December 2019.

12. This package was started on 9 July 2018, late a half of month according to commencement date of the contract. Date of finish as the contract is 29 October 2019, total construction time is 16 months. All of construction volume was completed in the Q4 2019.

13. This package provides and installs a ductile iron pipeline system and fittings with diameters from D400 to D1200 in locations of Phong Dien (4,3km), Tu Ha (3,0km), Hue City and surrounding areas (2,7 km) with 17 pipelines and total length is 34.405 m. This package was opened for bidding on June 2 and submitted for bidding evaluation to ADB. It was approved on July 5 by ADB. PMU signed the contract on 9 August 2017 with the contractor, Bach Dang Construction Corporation – JSC, after that PMU signed an Appendix on 08/3/2018.

***HUE – CW05 package:***

14. In this reporting period, only 425m / 5,005m of adjusted pipelines of Hue-CW05 were installed (pre-approved construction of the pipeline part through shrimp ponds with the agreement between 3 affected households and PMU is that the construction is implemented during gap time between 02 harvests, the pond is suspended for aquaculture. This LB7 part was being installed in February 2020 in order that AHs could start the harvest as scheduled.

15. By the end of the Q4 2019, the contractors have completed construction under the contracts at 92/93 routes. One route (BD11) has been cancelled due to the coincidence with existing pipeline in diameter and materials. All these pipelines were handed over to operate.

16. The package was commenced on 24/4/2018, date of finish as the contract is 29/9/2019, total construction time is 17 months.

17. This package provides and installs an HDPE pipeline system and fittings in Phong Dien (148 Km), Tu Ha (66 km), and Hue City (107 km) with 93 pipelines and total length is 321.609 m. The contract was signed on April 10, 2018 with Joint Venture of Dai Phu Thinh Company Ltd and Southern Construction Joint Stock Company.

***HUE – CW06 Package:***

18. In this reporting period, there was no construction activities of HUE-CW06 because this package was completed and handed over in December 2019.

19. At the end of December 2019, three construction packages of the subproject were completed construction 158 of the 159 routes with the length was 678.197m, less than 21.639m in comparison with the contract of the parties.

20. The contractor has commenced on 12/4/2016 and date of finish as the contract is 01/10/2019, total construction time is 18 months.

21. This package provides and installs an HDPE pipeline system and fittings in Loc An (100 km) and Loc Bon (230 km) with 49 pipelines and total length is 343.822 m. The contract was signed on March 8, 2018 with Vietnam Water & Environment Investment Corporation - JSC.

***Ten additional pipelines package:***

22. HueWACO proposes additional items of the subproject: installation of ten additional pipelines with an additional length of 21.8 km with the diameter from D225 to D1200 at three water supply areas namely Phong Dien, Hue city and Loc Bon. In the reporting period, DED of the ten additional pipelines

has not yet approved, uEMP of this package was approved by ADB in March 2020. The work load of ten additional pipelines will be divided into two package HU-CW03 and HU-CW05 when detail engineering design and cost estimation of ten additional pipelines package are approved.

## 2.2.2 Consulting Services Packages

23. Contract Management and Construction Supervision Consultant: On September 9, 2016, Thua Thien Hue Water Supply Joint Stock Company, signed a Consulting Services Contract for Contract Management and Construction Supervision with Joint Venture of Haskoning DHV Nederland B.V (the Netherlands) and Haskoning DHV Vietnam Co., Ltd (CMCS Consultant). The contract is valid for 36 months. The consultant will assist the PMU in the supervision of the awarded project and support the project management.

**Table 2: Subproject Overview and Progress**

Project Number and Title:	ADB Loan No. 2961-VIE (SF) Viet Nam Water Sector Investment Program: Thua Thien Hue Subproject	
Safeguard Category	Environment	B
	Involuntary Resettlement	B
	Indigenous People	not applicable
Reporting period:	January 2020 - June 2020	
Last report date:	March 2020	
Key subproject activities since the last report:	Status of safety issues/licenses/agreements: - Semi-annual monitoring report of the second half of 2019 was submitted and approved by the PMU and ADB in March 2020. - Packages Hue-CW03, Hue-CW05 and Hue-CW06 are completed in Q4 2019. In Q1 2020, only 425m / 5,005m of adjusted pipelines of Hue-CW05 were installed (pre-approved construction of the pipeline part through shrimp ponds with the agreement between 3 affected households and PMU is that the construction is implemented during gap time between 02 harvests, the pond is suspended for aquaculture). There was no construction action in QII 2020. - All contractors of three packages have submitted last monthly environmental monitoring reports of 2019 in Quarter 1 to CMCS and PMU. There was no construction action in QII 2020 so the contractors did not make environmental monitoring reports. - In this reporting period, water quality monitoring from pipeline networks of the subproject was carried out in June 2020. The result of monitoring shows that the water quality is met standard for domestic water quality as QCVN01-1:2018/BYT. The result of water quality monitoring is added in Annex 2 - Because most works of the three construction packages were completed in December 2019, so there was not consultation community in the reporting period.	

<b>Report prepared by:</b>	HueWACO/ CMCS consultant
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### 2.3 SAFEGUARD PLAN IMPLEMENTATION ARRANGEMENT

28. The institutional structure and responsibilities of stakeholders in the implementation of the EMP are set out in the updated EMPs, which have been approved by the ADB. With regard to the environmental safeguards in the EMP of Thua Thien Hue Water Supply Joint Stock Company (HueWACO) who is the project owner (PO) and the implementation agency (IA), HueWACO has formed a designated project management unit (PMU) to support it in implementing Phase I of the project and the EMP. The CMCS Consultant will assist in monitoring the EMP implementation.

29. Responsibilities of Executing Agency, Implementing Agency, PMU, CMCS, and Contractors in the implementation of the EMP are described in the table below.

**Table 3: Responsibilities of stakeholders in the implementation of EMP**

<b>Name of Agency</b>	<b>Responsibilities</b>	<b>Status of compliance</b>
<b>Executing Agency</b> Thua Thien Hue PPC	<ol style="list-style-type: none"> <li>1. To manage in terms of giving guidelines for the project.</li> <li>2. To give approvals of important decisions such as procurement plans, DED, etc.</li> <li>3. The EA will develop a Project Performance Monitoring System (PPMS) to monitor the overall performance of the project. The PPMS will include key indicators of environmental safeguard compliance from the EMP.</li> </ol>	<p>Complied</p> <p>Thua Thien Hue PPC issued follow decisions:</p> <p>Decisions No: 2024/QĐ-UBND dated 29/8/2016 on approval DED and estimated cost for the Subproject.</p> <p>Decisions No: 3009/QĐ-UBND dated 22/12/2017 on the plan of contractor selection to implement the subproject (first time).</p> <p>Decisions No: 1257/QĐ-UBND dated 07/6/2018 on the plan of contractor selection to implement the subproject (second time).</p>
<b>Implementation Agency</b> HueWACO	<p>The IA (HueWACO) has the ultimate responsibility for implementation of the entire subproject, including finance and administration, technical and procurement matters, monitoring and evaluation, and environmental safeguard compliance.</p> <ol style="list-style-type: none"> <li>1. To direct the PMU to ensure the compliance with the loan covenant and to approve important decisions for the project.</li> <li>2. To give approvals of proposed activities in case of adverse financial audits or monitoring and evaluation reports.</li> </ol>	<p>Being Complied</p> <ul style="list-style-type: none"> <li>- IEE of the subproject was approved by ADB</li> <li>- Loan Covenant is being complied (refer to Table 6 – Summary of Compliance with Loan Covenant)</li> </ul>
<b>PMU</b>	<ol style="list-style-type: none"> <li>1. To update the EMP during detailed designing and engineering phases to</li> </ol>	Being Complied

Name of Agency	Responsibilities	Status of compliance
	<p>ensure the EMP meets the detailed subproject designs.</p> <ol style="list-style-type: none"> <li>2. To submit quarterly and annual reports of the subproject to ADB, including reports related to the implementation of the EMP.</li> <li>3. To ensure compliance with the implementation of sub-projects under the guidance of environmental and social aspects of ADB.</li> <li>4. To monitor Contractors in their implementation of the EMP;</li> <li>5. To ensure safeguard requirements of the final EMP are adequately described in the bidding documents;</li> <li>6. To ensure EMP is incorporated in detailed designs and civil contracts;</li> <li>7. To coordinate the capacity development program of the PMU;</li> <li>8. To sign a contract with an Environmental Institute for implementation of monitoring plan of EMP;</li> <li>9. To disseminate the Grievance Redress Mechanism (GRM).</li> </ol>	<ul style="list-style-type: none"> <li>- uEMP was prepared by IA and submitted ADB. ADB issued NOL in April 2017</li> <li>- Updated EMP for the additional works was cleared and disclosed on ADB's website in May 2020.</li> <li>- All environmental requirements in EMP was integrated into the bidding documents.</li> <li>- Submitted semi - annual Environmental Safeguard Monitoring Reports to ADB.</li> <li>- Monitoring contractors in their implementation of the EMP via quarterly report on environment safeguard from contractors.</li> <li>- Carry out environmental effect monitoring by a contract with Environmental Institute for sampling and analysis parameters.</li> <li>- Set up and disclose a GRM for the subproject.</li> </ul>
<b>Contractors</b>	<ol style="list-style-type: none"> <li>1. To implement the requirements of the EMP and related reporting requirements.</li> <li>2. To develop and submit a specific CEMP to meet the requirements of the EMP.</li> <li>3. To obtain necessary permits for construction of the components.</li> <li>4. To appoint a full-time qualified staff to coordinate the implementation of the EMP, including environmental, health and safety issues.</li> <li>5. To cooperate with the PMU to resolve complaints under the GRM.</li> <li>6. To appoint environmental officers responsible for ensuring remedial measures and the EMP are implemented and reported regularly.</li> </ol>	<p>Being Complied</p> <ul style="list-style-type: none"> <li>- Submitted CEMP to meet the requirements of the EMP</li> <li>- Submit quarterly report on environmental safeguard</li> <li>- Assigned environmental officers</li> <li>- Solve related complaints of local under the GRM in cooperation with the PMU.</li> </ul>
<b>Contract Management and Construction Supervision</b>	1. To monitor remedial measures for environmental protection.	Being Complied
	2. To review site management and safety plans in accordance with approved safety	Supervise on the construction sites...

Name of Agency	Responsibilities	Status of compliance
<b>Consultant (CMCS)</b>	plans, contractual obligations, and current regulations.	
	3. To support the PMU in supervising and coordinating EMP implementation. At the same time, the CMCS consults with specialized experts of DoNRE, offices of Natural Resources and Environment in cities/districts and People's Committees under project areas.	Supervise compliance with EMP of the contractors: review CEMP of the contractors, comment on quarterly report on environmental safeguard Prepare semi - annual environmental safeguard monitoring report for PMU to submit ADB.
<b>Environmental Institute</b>	1. An environmental institute will sign a contract with the PMU to implement the environmental impact monitoring plan of the EMP during the construction phase of the subproject.	Complied Take sample and make environmental effect monitoring report as contract with PMU
<b>In operation phase</b>		
<b>Hue WACO</b>	1. As part of implementation of O&M manual for water supply systems instate a regular inspection program of all pipeline networks starting at intakes and ending at distribution networks focusing on junctions and end-user connections.	Complied Every week, Hue WACO regularly inspects all pipeline networks as a part implementation of O&M

#### 2.4 EMPS WERE UPDATED AND INTEGRATED WITH REQUIREMENTS FOR ENVIRONMENTAL SAFETY IN THE CONTRACT AGREEMENT

30. An updated EMP was required for the subproject. In April 2017, the updated EMP were submitted and approved by ADB.

31. The EIA report of the project was approved by DoNRE on September 4, 2015 with Decision No. 250/QD-TNMT. In the construction package contracts, contractors will be required to comply with environmental management measures defined in the EIA.

32. The contractors prepared the CEMP and submitted it to the PMU for approval. The PMU issued approval decisions before these packages were commenced. Those decisions were presented in the previous environmental safeguard report.

33. During implementation time of the subproject, when almost works have been completed, HueWACO proposes additional items of the subproject: installation of ten additional pipelines with an additional length of 21.8 km with the diameter from D225 to D1200 at three water supply areas namely Phong Dien, Hue city and Loc Bon.

34. The 10 additional pipelines is required an EMP updating. This uEMP has been prepared by PMU and submitted to ADB. ADB was approved in May 2020.

### **3 ENVIRONMENTAL PERFORMANCE MONITORING**

#### **3.1 EMP/EMOP IMPLEMENTATION AND COMPLIANCE**

##### **3.1.1 EMP/EMoP Implementation by Contractors**

35. In the reporting period, two packages HU-CW03 and HU-CW06 were completed construction and handed over from December 2019, therefore EMP/EMoP implementation by Contractors in this reporting report is not discussed for these two packages.

36. HU-CW05 package had construction activities for 425m pipeline through shrimp ponds with the agreement between 3 affected households and PMU is that the construction is implemented during gap time between 02 harvests, the pond is suspended for aquaculture. EMP/EMoP implementation by the Contractor of HU-CW05 package - Joint Venture of Dai Phu Thinh Company Ltd and Southern Construction Joint Stock Company, is presented in Table 4 below.

37. Joint Venture of Dai Phu Thinh Company Ltd and Southern Construction Joint Stock Company assigned 2 staffs with responsibilities on environment and safety.

38. The contractor Joint Venture of Dai Phu Thinh Company Ltd and Southern Construction Joint Stock Company carried out the approved CEMP on the construction sites according to their contract progress and submitted quarterly reports to the CMCS and PMU. The quarterly reports of the contractors consist of main issues: (i) construction works in the quarter; (ii) environmental impact from construction activities; (iii) mitigation measures implemented.

39. The Contractor ensure that the environmental management staff has a monthly work diary on site that records all matters related to site safety inspections and related incidents.

40. The Contractors carried out raising awareness on environmental impact mitigation on the construction site for their staffs by weekly briefing and the surrounding local communities by communicating directly with them.

##### **3.1.2 Environmental Monitoring by PMU**

41. During the construction phase, the inspection, evaluation and documentation of EMP and EMoP compliance by contractors will be conducted by the CMCS Consultant under the supervision of the PMU.

42. PMU also inspects reporting on the implementation of mitigation measures by contractors and CMCS. PMU reviews quarterly reports on environmental safeguard of the contractors and quarterly reports of CMCS, which includes implementation the EMP of the subproject.

43. PMU prepares the first draft of semi-annual environmental monitoring report with support from CMCS and submit it to ADB in August 2020.

##### **3.1.3 Monitoring Activities Carried Out by CMCS Consultant**

44. In the reporting period, supervision consultant coordinates with the Contractors, focusing on completing the results of testing, verifying, pressure testing, rinsing and disinfecting the completed pipelines or branches of the service lines of three package HU-CW03, HU-CW05 and HU-CW06. Regarding to the pipelines can connect with the existing systems, CMCS require the contractors concentrate on completing the handover procedures for investors to use supplying water for households.

45. The inspection and evaluation records were consolidated by the CMCS in their Monthly and Quarterly Progress Reports. The reconciliation and synthesis of the CMCS in compliance with the

Contractor's requirements for EMP and EMoP were summarized in the report to be submitted to the PMU within 15 days at the end of every quarter

46. The CMCS Consultant carried out daily inspections, construction and environmental supervision and provide support and advice the Joint Venture of Dai Phu Thinh Company Ltd and Southern Construction Joint Stock Company on mitigation measures and activities specified in the approved CEMP / EMP and EMoP of the package HU-CW05 for construction of 425m of pipeline through shrimp pond.

47. CSC also supervised the contractor HU-CW05 package to implemented prevention measures on COVID19 such as wearing an appropriate face mask, keep distance, limiting communication with local people around the construction site of the shrimp, wash hands before working shift with alcohol 70% .

48. The CMCS Consultant conducted to assist the PMU in compiling the semi-annual monitoring report of the second half of the year 2019 for submission to ADB.

49. The CMCS Consultant's review on the assessment of the safeguard's compliance with the requirements of the EMP and EMoP by the Contractors is summarized in below Table 4.

**Table 4: Compliance with requirements in the EMP**

<b>EMP Requirements (Mitigation Measures)</b>	<b>Compliance Status (Yes, No, Partial)</b>	<b>Comment or Reasons for Non-Compliance</b>	<b>Issues for Further Action</b>
(1)	(2)	(3)	(4)
<b>CONSTRUCTION PHASE</b>			
<b>Hue-CW03 Package:</b>			
There were no activities during this reporting period. There are no complaints or grievances on environment about the pipelines completed in October 2019.			
<b>Hue-CW05 Package:</b>			
Worker camp operation	Complied Solid waste was generated according to number of workers therefore it was fluctuation in the reporting period. In the quarter 1 of 2020, number of workers were around 6 people. Solid waste was collected into available bins in workers' camps and operating offices. This waste was collected daily by hygienists of Phu Vang District. There were no complaints from the local people about worker camp operation of the contractor.		
Tree and vegetation removal, and site restoration sub-plan	Complied No trees and vegetation were removed in the construction sites of the contractor in this reporting period. Whenever completing the construction activities of each pipeline, the contractor		

EMP Requirements (Mitigation Measures)	Compliance Status (Yes, No, Partial)	Comment or Reasons for Non-Compliance	Issues for Further Action
(1)	(2)	(3)	(4)
	cleaned up the site, including transporting all unused materials, relocating, dismantling all machinery, temporary works, working ground		
Civil works	<p>Complied</p> <p>The workers were not allowed to clean tools or machines directly at the water source and the area where can affects to water source. Soil falling on the road during trench digging and rebuilding was cleared every day or when a part of the works was completed.</p> <p>The contractor covers all trucks to ensure that the spoils did not fall on roads.</p> <p>Solid waste was collected; No waste was to be discarded on land or in forests/plantations or rivers, lakes, canals</p>		
Cultural chance finds	<p>Complied</p> <p>No finding in the reporting period.</p>		
Noise, vibration sub-plan for all construction activities	<p>Complied</p> <p><b>Reduce noise:</b></p> <p>Noise come from vehicles/machines such as excavator, truck, compactor, concrete mixer, generator</p> <p>Contractor carried out mitigation measure: check machines regularly to avoid damages and carry out maintenance and testing works periodically.</p> <p>In construction sites locate in resident areas, the contractor works during working hours to minimize impact to local people.</p> <p><b>Reduce dust:</b></p> <p>Dust from dry soil temporarily dumped along the construction road waiting for re-construction, dust generate when mixing concrete; vehicles transport soil and stones which was dropped on the road generate dust.</p> <p>Dry soil to use for reconstruction that dumped along the construction road is calculated assemblage for enough using.</p> <p>Clean falling soil on the road to reduce dust;</p>		



EMP Requirements (Mitigation Measures)	Compliance Status (Yes, No, Partial)	Comment or Reasons for Non-Compliance	Issues for Further Action
(1)	(2)	(3)	(4)
	<p>Transported soil on trucks to dumpsites was covered with tarpaulin to prevent dust from being swept away by the wind.                      Water was sprayed to reduce dust on roads around construction sites.</p> <p><b>Air pollution:</b>                      Exhausted air come from vehicles/machines such as excavator, truck.                      The contractor only used machine in good working condition on sites with inspection licenses and checked them regularly to avoid damage and carried out maintenance works in time.</p>		
Solid and liquid construction waste management sub-plan	<p>Complied</p> <p><b>Solid waste:</b> domestic waste of workers in the reporting period was around 6kg/day and it was collected to dispose.                      There was no soil spillage during this reporting period.</p> <p><b>Waste grease:</b>                      In the reporting period, no damaged machines in the construction sites, as a result no waste grease on the site.                      Regarding to periodic maintenance, used oil will be collected and processed.</p> <p><b>Hazardous waste:</b> (welding rods)                      To retain welding rods and use them all and avoid leaving any residue. Use a 20-liter plastic container to store excess welding rods and put it in the welding area, then collect them and place in a 100-liter plastic container with lid.                      Do not bury or throw welding rods at construction sites.                      At the end of the contract, total weight of welding rods will be transferred to a functional unit to treat as regulation on hazardous waste.</p>		
Excavation spoil management sub-plan	<p>Complied</p> <p>Excess soil and rock regularly generated during construction process when digging and embanking ditches to lay pipes.</p>		

<b>EMP Requirements (Mitigation Measures)</b>	<b>Compliance Status (Yes, No, Partial)</b>	<b>Comment or Reasons for Non-Compliance</b>	<b>Issues for Further Action</b>
(1)	(2)	(3)	(4)
	Excavated soil from trench digging and backfilling was dumped onto trucks to transport to disposal sites as prescribed. Anyhow, in the reporting period excavated soil was small, only around 200m <sup>3</sup> .		
Construction Drainage sub- plan	Complied Wastewater discharged from manholes and used to clean construction equipment contained no substances that may cause environmental pollution. This water was dumped on the soil around the manholes and then absorbed into the soil or flowed into existing roadside drainage ditches or temporary drainage ditch systems.		
Construction materials acquisition, transport, and storage sub-plan	Complied All aggregate loads on trucks of the contractor were covered by tarpaulin The contractor carries a sufficient amount of pipeline to their construction sites, which would be installed promptly, to avoid obstructing the traffic		
Utility and power disruption subplan	Complied No water or power disruption in the reporting period.		
Erosion / land slide subplan	Complied The Contractor placed plastic sheet fencing around all excavations areas near surface water to prevented erosion. The Contractor regularly checked reconstruction routes to detect subsidence and conduct settlement compensation.		
Worker and public safety sub-plan	Complied Installing fences, works ahead signs, and speeding signs, and use signal lights at night ... for traffic participants knew that there was construction site ahead so that they can slow down their speed to avoid any collisions or accidents.		
Construction and local vehicle traffic sub-plan	Complied Arranging traffic control workers at both ends of construction sites during rush hours to separate and regulate traffic to avoid traffic jams.		

EMP Requirements (Mitigation Measures)	Compliance Status (Yes, No, Partial)	Comment or Reasons for Non-Compliance	Issues for Further Action
(1)	(2)	(3)	(4)
	Applying successive construction form; carrying out excavation, filling and restoration activities in daytime to shorten impact times to minimum. No cases of traffic accidents, traffic jams, congestion caused by the contractor's construction site. There were no complaints from the local people about traffic obstruction or impacts caused by the construction site of the contractor.		
Prevention COVID19	Complied  The contractor of HU-CW05 package required workers and staffs wear an appropriate face mask, keep distance, limit communication with local people around the construction site of the shrimp pond, wash hand before working shift with alcohol 70%.  There was not any case of COVID19 occurred in the reporting period.		
<p style="text-align: center;"><b>Hue-CW06</b></p> <p>There were no activities during this reporting period. There are no complaints or grievances on environment about the pipelines completed in October 2019.</p>			

**Some photos on the construction sites**

Hue-CW05	
	
Construction work through shrimp ponds.	

## EMP implementation during operation

In the operation phase, as defined in uEMP of the subproject, The PMU – HueWACO has responsibilities to implement mitigation measure as below table:

**Table 5: Compliance with requirements in the EMP in operation phase**

EMP Requirements (Mitigation Measures)	Compliance Status (Yes, No, Partial)	Comment or Reasons for Non- Compliance	Issues for Further Action
(1)	(2)	(3)	(4)
<b>OPERATION PHASE</b>			
<b>Hue-CW03 Package, Hue-CW05 Package and HU-CW06 Package</b>			
Educate workers in workplace safety of WS system operation according to MoLISA regulations	Being complied Workers of HueWACO are regularly trained on workplace safety		
Prevent public access to all intake areas, pipeline corridors, and distribution networks with fencing and appropriate signage.	Being complied All intake areas are fenced, pipeline networks are located underground and remarked.		
As part of implementation of O&M manual for water supply systems instate a regular inspection program of all pipeline networks starting at intakes and ending at distribution networks focusing on junctions and end-user connections.	Being complied HueWACO Company regularly inspects pipeline networks to ensure that it is in good condition.		
Public complaints of drinking water availability & quality, and malfunctions with pipelines (e.g., leaks)	Being complied No complaint from local people since handing over pipeline routes of the project		
Coordinate with Dept of Health to periodically monitor treated water quality to ensure it meets potable quality standards	Being complied Dept of Health took sampling of treated water from pipeline routes of the project. Result of monitor treated water quality is meet QCVN 01-1:2008/BYT. Analysis result is added in Annex 2		

### 3.1.4 Key Issues and Corrective Actions

#### Remedial Actions for Issues Mentioned in the Previous Report

50. The issues to be addressed during the last report period are no longer existing.

#### Environmental Key Issues for Further Actions from this report period

51. Base on Table 4 on Compliance with EMP requirements for all three packages Hue-CW03; Hue-CW05 and Hue-CW06, there were not environmental issues for further action.

52. Furthermore, end of this reporting period, all construction works have been completed, three contractors is working with complying record to finalize payment therefore the CMCS and the PMU have carried out monitoring and required completion all remaining issues on the construction site.

53. The CMCS and the PMU have to check all hazardous waste (grease, oil, welding rod) that have been collected in storage of the contractors need to be handed to the company's store and disposed as regulation.

54. There are no complaints or grievances on environment as well as site restoration (spare soil transportation) in 03 packages during this reporting period.

55. Satisfactory compensation for 03 AHs affected on shrimp ponds, AHs have returned to normal aquaculture after the accomplishment of pipeline installation and site restoration. There are no impacts on water environment.

## **3.2 HEALTH AND SAFETY**

### **3.2.1 OHS for Workers**

56. There was no occupational accident occurred during the reporting period for this package.

57. HUE-CW05 Package: Mitigation measures were carried out by the contractor to ensure OHS for workers as below:

- Drinking water was provided to workers every day.
- Workers were supplied PPE such as helmets, shoes, masks, glasses and reflective jackets and ear protection devices.
- First aid equipment was set up at worker camp where workers have convenient access to.
- Safety engineer of the contractor checked safety situation of trenches/ pits before workers were allowed to work at the trenches/pits
- There was no disturbance of social order and security at the construction site during the reporting period. Workers were registered temporary residence with the local police.
- For fire, explosion and electric shocks, the contractor carried out below safety solution: cooking or rubbish burning was not allowed near fuel stations; electric wire was checked to be ensured that it was not overload for electrical equipment and connected with switches/ circuit breakers; fire extinguishers were provided in fuel stations.

### **3.2.2 Public Safety**

58. The contractor of Hue-CW05 package provided warning signs, lights, and notice boards at the construction sites and installed fences and warning signs on open ditches and pits to ensure traffic safety for people and vehicles. There was no traffic accident from activities of the contractors during this reporting period.

59. The contractor installed of temporary barriers in construction areas to prevent unauthorized people from entering and leaving the construction site; unauthorized personnel are not allowed to enter high-risk areas such as excavation and areas where heavy equipment is under construction); having electric lighting system at night time; limiting the speed of transportation vehicles in road sections across residential areas.

60. Besides, to prevent disturbance of social order and security from workers, the contractor carried out: registering temporary residence with the local police for the number of workers and control the absent workers, disseminate and regularly remind workers of construction site rules, regulations on management of workers, limit alcohol drink or unacceptable activities ...

61. Furthermore, the contractor informs their construction plan to the local communities as soon as possible when commencement a pipeline; place fences / signals on open trenches, deep pits and any other dangerous site that the contractor can identify.

62. Issues needed to be considered about health and safety are presented in the below table:

**Table 6: Occupation Health Safety and Public Safety Issues**

Issue	Required Action	Responsibility and Timing	Resolution
<b>Old issues from previous report</b>			
Construction sites along with main roads where are usually crowded with many traffic vehicles, the contractors must maintain the traffic separation throughout the construction process to reduce the impact on people traveling and minimize accidents.	Contractors provide enough warning signs and fence divider; assign staffs in charge for traffic separation at both starting point and ending point of the road	Contractors, CMCS Deadline: the end of June 2020	The CMCS supervised daily at the site, reminded the contractors supply necessary sign boards, fence divider.
<b>New issues from this report: No</b>			

### 3.2.3 Implementation of Prevention on COVID19

63. Since the beginning of the COVID19 pandemic, PMU carried out prevention measures as requirement from the government and guidance from ADB, such as (i) providing handwashing liquid, masks, check temperature of staff at PMU office, work at home to keep social distance...

64. The construction contractors of 3 packages HU-CW03, HU-CW05 and HU-CW06, due to almost completed construction and handed over at the end of 2019, therefore no construction activities during this reporting period except construction of 425m of pipeline through shrimp pond of HU-CW05 package. Because time for construction 425m of pipeline was within a month (February 2020) with around 7 workers working intermittently, PMU requested CSC and HU-CW05 contractor to implemented prevention measures: wear appropriate face mask, keep distance, limit communication with local people around the construction site of the shrimp pond, wash hand before working shift with alcohol 70% .

65. There was not any case of COVID19 occurred in the subproject during this reporting period.

### 3.3 ENVIRONMENTAL EFFECTS MONITORING

#### 3.3.1 Monitoring plan:

66. The monitoring plan focuses on all three phases (pre-construction, construction and operation phase) of the project and provides environmental indicators, sampling location & frequency, data collection methods, responsible parties and estimated costs. The monitoring plan for the quarterly environmental monitoring is centred on the ongoing working sites at each pipeline of the component.

67. The purpose of the monitoring plan is to determine the effectiveness of impact mitigation measures and to document any positive or negative environmental impacts of the project.

68. PMU hired the Centre of Natural Resources and Environment Monitoring belonging to DoNRE Thua Thien Hue to implement the environmental impact monitoring plan of the subproject. This organization meets the requirements of standards for environmental monitoring organization.

69. Anyhow, domestic water quality is will be monitored by Department of Health (DOH) Thua Thien Hue province is authority organization, therefore in operation phase, DOH will be in charge to monitor water quality from the subproject of HueWACO.

#### 3.3.2 Monitoring activities in the reporting period:

70. During the reporting period, the construction of Hue-CW03, Hue-CW05, Hue-CW06 packages have been completed and put into use. The parties signed the handover minutes after Accomplishment of construction in Q3 and Q4 2019.

71. The environmental impact monitoring was not carried out for construction site of LB7 pipeline belongs to HU-CW05 package because construction time of 425m was within a month (February 2020) but there was not complain about air quality, noise or vibration or surface water quality from construction works of the contractors.

72. During the reporting period, to assess water quality from the pipeline system of the subproject, HueWACO took water sample from pipeline network of Hue City, Tu Ha, Loc An and sent to DOH of Thua Thien Hue province for testing in June 2020. The result of testing shows that water quality from pipeline network of the subproject is good, all parameter such as turbidity, hardness, chloride, Nitrite, metal, coliform....are under allowable limitation of QCVN01-1:2018/BYT, National technical regulation on Domestic Water Quality. The result of water quality monitoring from pipeline network of Hue City, Tu Ha, Loc An is added in Annex 2.

### 4 COMPLIANCE WITH SAFEGUARDS RELATED PROJECT COVENANTS

73. The compliance status of the safeguards related to the Loan Agreement is detailed in table 6 below.

**Table 7: Summary of Compliance with Loan Covenant**

Schedule	Para No.	Description	Remarks/Issues
5	4	<b>Environment</b> The Borrower, Project Executing Agencies and WSCs shall ensure that the preparation, design, construction, implementation, operation and commissioning of each Subproject and all Project's facilities comply with (a) all applicable laws and regulations of	Complied (a) All applicable laws and regulations related to environment, health, and safety such as Law on Environmental Protection 2015 and legal documents on implementation guidance this Law; Labor Code 10/2012/QH13 and legal documents

Schedule	Para No.	Description	Remarks/Issues
		the Borrower related to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements specified in the respective IEE and EMP, and any corrective or preventative actions outlined in the Safeguard Monitoring Report.	<p>on implementation guidance this Law were complied in the preparation, design, construction, implementation, operation and commissioning of the Hue Subproject.</p> <p>(b) The Environmental Safeguards were applied in the preparation, design, construction, implementation, operation and commissioning of each Subproject (IEE of the Hue subproject was approved by ADB, EMP was prepared by IA and submitted ADB. ADB issued NOL in April 2017, uEMP for the additional works was disclosed in May 2020)</p> <p>(c) the Hue Subproject is categorized B in term of environment. An IEE was prepared and submitted to ADB for clearance and disclosure in 2012 in accordance with the approved EARF</p> <p>(d) All measures and requirements specified in the respective IEE and EMP, and any corrective or preventative actions outlined in the Safeguard Monitoring Reports of the subproject were complied during the preparation, design, construction, implementation, operation and commissioning of the subproject.</p>
5	8	<p><b><i>Human and Financial Resources to Implement Safeguard Requirements</i></b></p> <p>The Borrower, Project Executing Agencies and WSCs shall provide the necessary human resources and budget to fully implement EMP, RP and EMDP.</p>	<p>Complied</p> <p>PMU has assigned 1 staff in charge of environmental management of the project.</p> <p>Budget for implementing the EMP was allocated in the contract of CMSC and Contractors</p>
5	9	<p><b><i>Safeguards-related Provisions in Bidding Documents and Works Contracts</i></b></p> <p>The Borrower, Project Executing Agencies and WSCs shall ensure that</p>	<p>Complied</p> <p>(a) Provision (a) was included in:</p> <ul style="list-style-type: none"> <li>- Sub-clause 4.18 Environmental Protection under Part B – Specific Provision of bidding</li> </ul>



Schedule	Para No.	Description	Remarks/Issues
		<p>all bidding documents and contracts for Works containing provisions that require contractors to:</p> <p>(a) comply with the contractor-related measures and requirements outlined in IEE, EMP, RP and EMDP (to the extent they care about the impact on those affected during construction) and any corrective or preventive action outlined in the Safeguard Monitoring Report;</p> <p>(b) prepare a budget for all environmental and social measures;</p> <p>(c) send the Borrower, Project Executing Agencies and the WSCs with written notices of any unforeseen risks or impacts related to the environment, resettlement or indigenous people arising during the construction, implementation or operation of the Project that are not considered in IEE, EMP, RP or EMDP;</p>	<p>document of package HU-CW03, HU-CW05, HU-CW06.</p> <p>(b) Provision (b) was included in:</p> <ul style="list-style-type: none"> <li>- Sub-clause 4.18 Environmental Protection under Part B – Specific Provision of bidding document of package HU-CW03, HU-CW05, HU-CW06 and at Chapter 6 – section 10 Environmental Control in the Construction Contract of HU-CW03, HU-CW05, HU-CW06 packages.</li> </ul> <p>(c) Provision (b) was included in:</p> <ul style="list-style-type: none"> <li>- Sub-clause 4.18 Environmental Protection under Part B – Specific Provision of bidding document of package HU-CW03, HU-CW05, HU-CW06 and at Chapter 6 – section 10 Environmental Control in the Construction Contract of HU-CW03, HU-CW05, HU-CW06 packages.</li> </ul> <p>Added related documents in Annex 3</p>
5	10	<p><b><i>Safeguard Monitoring and Reporting</i></b></p> <p>The Borrower, Project Executing Agencies and WSCs shall perform the followings:</p> <p>(a) submit Semi-Annual Safeguard Monitoring Reports to ADB and disclose relevant information from such reports to affected people promptly upon submission; if there are any unforeseen social risks and/or risks arising during the construction, implementation or operation of the Project that are not considered in the IEE, EMP, RP or EMDP, ADB must be promptly informed of the occurrence of such risks or impacts, with a detailed description of the event and a proposed corrective action plan;</p>	<p>Being complied</p> <p>(a) The first Environmental Safeguards Monitoring Report of the project was prepared for half of last year of 2017. There were more 4 Environmental Safeguards Monitoring reports was prepared and submitted to ADB for approval. All the reports were disclosed in the ADB's website.</p> <ul style="list-style-type: none"> <li>- All relevant information from these reports were informed to affected people through discussions between PMU/CSC/Contractor with the authorities of the communes/ wards in the project area.</li> <li>- Since the beginning of the COVID19 pandemic, PMU carried</li> </ul>

Schedule	Para No.	Description	Remarks/Issues
		(b) promptly report any actual or potential breach of non-compliance with the measures and requirements specified in the EMP, RP or EMDP after having become aware of it.	<p>out prevention measures as requirement from the government and guidance from ADB, such as (i) providing handwashing liquid, masks, check temperature of staff at PMU office, work at home to keep social distance...(ii) For the construction contractors, due to completed construction and handed over therefore PMU only requested CSC and HU-CW05 contractor to implemented prevention measures when they constructed 425m of pipeline through shrimp pond. Result of prevention COVID19 is mentioned in this SEMR which will be submitted to ADB for clearance.</p> <p>(b) Any actual or potential breach of compliance with the measures and requirements set forth in the updated EMP have been reported in the safeguard monitoring reports prepared by the PMU (semi-annual) submitted to ADB from last 2017.</p>
5	11	<p><b><i>Labor and Health Standards</i></b></p> <p>The Borrower, Project Executing Agencies and WSCs shall ensure that (a) all Project contractors (i) comply with all applicable Borrower labor laws and relevant international treaty obligations and do not employ child labor, (ii) employ female workers and provide equal wages or benefits to working men and women, (iii) provide basic water and sanitation facilities for men and women in construction sites (iv) provide safe working conditions for male and female workers, (v) provide day care services for female construction workers with childcare needs and (vi) implement awareness campaigns and education on human trafficking / HIV / AIDS, STI and human trafficking in construction sites; and</p>	<p>Being Complied</p> <p>(a) Provision (a) was included in:</p> <ul style="list-style-type: none"> <li>- Sub-clause 4.18 Environmental Protection under Part B – Specific Provision of bidding document of package HU-CW03, HU-CW05, HU-CW06, and at Chapter 6 – section 10 Environmental Control in the Construction Contract of HU-CW03, HU-CW05, HU-CW06 packages.</li> </ul> <p>(b) Provision (b) was included in:</p> <ul style="list-style-type: none"> <li>- Sub-clause 4.18 Environmental Protection under Part B – Specific Provision of bidding document of package HU-CW03, HU-CW05, HU-CW06</li> </ul>

Schedule	Para No.	Description	Remarks/Issues
		(b) All Works contracts must include provisions requiring complying with the above requirements. Compliance is closely monitored. (c) Provide sufficient budget to all signed contracts.	and at Chapter 6 – section 10 Environmental Control in the Construction Contract of HU-CW03, HU-CW05, HU-CW06 packages.  (c) Provision (b) was included in: - Sub-clause 4.18 Environmental Protection under Part B – Specific Provision of bidding document of package HU-CW03, HU-CW05, HU-CW06 and at Chapter 6 – section 10 Environmental Control in the Construction Contract of HU-CW03, HU-CW05, HU-CW06 packages.

## 5 INFORMATION DISCLOSURE AND SOCIALIZATION INCLUDING CAPACITY BUILDING

### 5.1 PUBLIC CONSULTATION, MEETINGS AND INFORMATION DISCLOSURE

74. In first half of 2020, the PMU continues implementing communication on water supply pipe installation plans for household using, price incentives and water consumption price promotion program in the first months of use to poor households and women-headed households in some wards and communes in the project area where the pipeline has been completed installation. This program was included benefit of clean water, improving public health and sanitation, minimizing pollution of the living environment, and ensuring the sustainability of public benefits.

75. At the time of community consultation on 10 additional pipelines. Consulted communities in the wards / communes where the additional pipelines run through believe that the contractors must restore the site as its original condition, in accordance with the standards and contractor commitments, in order to avoid the impacts on resident life during and after the construction process.

76. By the time of preparing this report, there are no grievances from local community about the completed construction in Q4 2019 and the installation of 425m of LB7 pipeline in Q1 2020.

### 5.2 INFORMATION DISCLOSURE:

77. The semi-annual environmental monitoring reports of the last year 2019 was disclosed in ADB website. The information disclosure on SEMR was also mentioned when the PMU implements communication on water pipeline installation for households using as well as benefit of clean water, improving public health and sanitation, minimizing pollution of the living environment to communes where water pipeline completion installation

### 5.3 TRAINING – CAPACITY BUILDING

78. Four members of the PMU of Hue Subproject has been provided with a training course on environmental social safeguards by ADB (i) Gender issue: Workshop on “Promoting Gender Equality

and Empowering Women in ADB-financed project” in Ho Chi Minh City on April 3, 2013 and in Nha Trang on August 21, 2013 (ii) Environmental issue: ADB environmental safeguard implementation, monitoring and reporting in Hanoi on August 20, 2013.

79. The PMU has coordinated with the CMCS to developed and organized training courses on labour safety and health of workers; environmental mitigation plan during construction process; ensuring traffic safety, mandatory equipment during the construction process, the traffic separation planning and signs, remote warning in the quarter two of 2019.

#### **5.4 PRESS/MEDIA RELEASES**

80. In order to expand the disclosure of Project information, the implementation status and lessons learnt from the ADB-financed Projects have been published on the website of HueWACO (<http://huewaco.com.vn/>) since the beginning of the project. These publications aim to share experiences about Project’s activities and its progress within the water industry network, partners and stakeholders.

#### **5.5 GRIEVANCE REDRESS MECHANISM**

81. A 24/7 Call Centre (Phone no.: 02343 890 890) has been set up in HueWACO’s Customer Service Department in March 2014. The Call Centre receives any complaints and queries from customers and directly connect to the Grievance Unit operated by Construction Enterprise since December 2017.

82. In the reporting period, no written grievance has been received and no oral complaints have been reported.

### **6 CONCLUSIONS AND RECOMMENDATIONS**

83. The results of EMP implementation have shown that all requirements of EMP and EMoP have been followed by the contractors and PMU.

84. In fact, the construction of 425m of LB7 pipeline was carried out only in February 2020. The overall implementation/compliance of the subproject for the EMP/EMoP was assessed to be satisfactory in this reporting period.

85. Although the environmental impact monitoring program was not carried out on the construction site because construction time of 425m of LB7 pipeline was within a month (February 2020) but there was not complain about air quality, noise or vibration or surface water quality from construction works of the contractors. The water quality monitoring of pipeline network of Hue City, Tu Ha, Loc An shows that the water quality of subproject is good, all parameters are under allowance limitation of QCVN 01-1:2018/BYT.

86. At the end of the reporting period, all of construction volume are completed with all pipelines are available to operate. Restoration of ground and site clean-up activities were strictly supervised by the PMU and the CMCS. All minute on handing-over of construction ground to the authorized organizations had to be collected and filed in documents of three contractors, which is evidence for last payment.

87. Restoration of ground and site clean-up activities at worker camps also were complied with requirement and supervised by the CMCS and PMU.

88. PMU requested CSC and HU-CW05 contractor to implemented prevention measures on COVID 19 such as wearing an appropriate face mask, keeping distance, limiting communication with local people around the construction site of the shrimp pond, washing hands before working shift with

alcohol 70% . There was not any case of COVID19 occurred in the subproject during this reporting period.

#### **ANNEX 1: SITE HANDOVER AFTER ACCOMPLISHMENT OF CONSTRUCTION MINUTES**

Cộng hoà Xã hội Chủ nghĩa Việt Nam  
**Độc lập - Tự do - Hạnh phúc**

Socialist Republic of Vietnam  
Independence – Freedom – Happiness

*Thừa Thiên Huế, ngày 02 tháng 12 năm 2019*

**Biên bản số: 01-LB1/CW06-HT**  
**NGHIỆM THU HOÀN THÀNH HẠNG MỤC CÔNG TRÌNH**  
**HOẶC CÔNG TRÌNH ĐỂ ĐƯA VÀO SỬ DỤNG**

Công trình/Works: HUE-CW06: Cung cấp và lắp đặt các tuyến ống I DPE và phụ kiện tại các vùng I.ộc An và Lộc Bồn.

Thuộc/Package: Dự án cấp nước Tỉnh Thừa Thiên Huế giai đoạn 2011-2015 có tính đến giai đoạn 2020

Hạng mục/Item: Tuyến ống truyền tải nước sạch tuyến LB1; D315 HDPE L = 10.395m dọc tỉnh lộ 3 xã Phú Xuân, huyện Phú Vang, tỉnh Thừa Thiên Huế

Địa điểm/Location: xã Phú Xuân, huyện Phú Vang, tỉnh Thừa Thiên Huế

**I. Thành phần trực tiếp tham gia nghiệm thu/Acceptance Team:**

**1. Đại diện Chủ đầu tư/Representative of Client: Công ty Cổ phần Cấp nước Thừa Thiên Huế**

Ông: Trương Công Nam Chức vụ/Title: Chủ tịch HĐQT, Trưởng Ban QLDA

Ông: Trần Văn Thọ Chức vụ/Title: P. Tổng giám đốc, P. Ban QLDA

Ông: Nguyễn Văn Duy Chức vụ/Title: Giám đốc xí nghiệp xây lắp.

**2. Đại diện tư vấn giám sát/Representative of Supervision Consultant: Liên danh Công ty HaskoningDHV Nederland B.V (Hà Lan) và Công ty TNHH HaskoningDHV Việt Nam và tư vấn phụ Công ty cổ phần tư vấn xây dựng Watech:**

Ông: Antti Matti Nykanen Chức vụ/Title: Trưởng đoàn tư vấn

Ông: Nguyễn Thanh Thế Chức vụ/Title: P. Đoàn Tư vấn

Ông: Nguyễn Bá Thành Chức vụ/Title: Tư vấn giám sát.

**3. Đại diện Nhà thầu thi công /Representative of Construction Contractor: Tổng công ty Dầu tư nước và môi trường Việt Nam - CTCP**

Ông: Trương Huy Hải Chức vụ/Title: P. Tổng giám đốc

Ông: Đỗ Văn Trung Chức vụ/Title: Chỉ huy phó công trình

**4. Đại diện tư vấn thiết kế xây dựng/Representative of Design Contractor: Công ty Cổ phần Tư vấn và Đầu tư xây dựng hạ tầng Phương Đông (OCI)**

Ông: Lại Minh Tâm Chức vụ/Title: Giám đốc, chủ nhiệm thiết kế

Ông: ..... Chức vụ/Title: .....

**II. Thời gian tiến hành nghiệm thu/Date of Acceptance:**

Bắt đầu/Start: 8h00 ngày/day 02 tháng/month 12 năm/year 2019

Kết thúc/End: 10h30 ngày/day 02 tháng/month 12 năm/year 2019

Tại/At: Hiện trường thi công công trình.

### **III. Đánh giá hạng mục công trình xây dựng, công trình xây dựng đã thực hiện/Assessment of implemented construction works/items:**

#### **1. Về tài liệu làm căn cứ/Basis of Acceptance:**

1.1. Hợp đồng kinh tế số:HUE - CW06 ngày 08 tháng 3 năm 2018.

1.2. Phụ lục hợp đồng:

- Số 01 : Hợp đồng số: HUE – CW06 ngày 14 tháng 08 năm 2019.

- Số 02: Hợp đồng số: HUE – CW06 ngày 05 tháng 11 năm 2019.

1.3. Hồ sơ bản vẽ thiết kế tuyến ống cấp nước sạch LB1: D315 HDPE L = 10.395m dọc tỉnh lộ 3 xã Phú Xuân, huyện Phú Vang, tỉnh Thừa Thiên Huế.

1.4. Các văn bản phê duyệt của Chủ đầu tư:

a. Phê duyệt hồ sơ “ Biện pháp thi công, tiến độ thi công, các bản vẽ phương pháp thi công, quy chuẩn, tiêu chuẩn áp dụng ”

b. Các văn bản phê duyệt danh mục vật tư số: 221/CV-QLDA ngày 09/4/2018; 388/CV-QLDA ngày 19/6/2018; 535/CV-QLDA ngày 23/8/2018; 54/CV-QLDA ngày 31/01/2019.

c. Văn bản chấp thuận năng lực phòng thí nghiệm cho gói thầu HUE-CW06 số :277/CV-QLDA ngày 15/5/2018.

d. Văn bản đồng ý điều chỉnh, bổ sung một số nội dung của các gói thầu HUE-CW06 số 394A/CV-QLDA ngày 20/6/2018.

e. Văn bản số: 417/QĐ-CNH về việc “ Phê duyệt thiết kế BVTC và dự toán điều chỉnh, bổ sung hạng mục: Cung cấp và lắp đặt các trụ tín hiệu, học van tín hiệu, mỡ denso bảo vệ mối nối” ngày 29/6/ 2018.

f. Văn bản đồng ý thay đổi vật liệu đệm ống của gói thầu HUE-CW06 số 813A/CV-QLDA ngày 20/12/2018

g. Văn bản số 440/CV-QLDA về khối lượng, đơn giá bổ sung gói thầu HUE-CW06 ngày 9/7/2018.

h. Văn bản số 251/CV-QLDA về khối lượng, đơn giá bổ sung gói thầu HUE-CW06 lần 2 ngày 23/5/2019.

i. Các biên bản xác nhận, xử lý hiện trường...

1.5. Biên bản giao nhận mặt bằng tuyến LB1.

1.6. Các biên bản nghiệm thu hạng mục hoàn thành xây dựng.

1.7. Các tài liệu thí nghiệm và kết quả thí nghiệm.

1.8. Bản vẽ hoàn công công trình.

#### **2. Về chất lượng công việc xây dựng/Quality of Construction:**

2.1. Tiến độ công việc:

- Đảm bảo tiến độ đề ra.

2.2. Chất lượng công việc xây lắp:

- Chất lượng hàn nối lắp đặt ống: đảm bảo yêu cầu kỹ thuật, đáp ứng theo các quy định kỹ thuật trong hợp đồng, tuyến ống, phụ kiện thử áp theo quy trình (8-12-6) thời gian (2-1-2) giờ hoàn toàn đáp ứng yêu cầu chuyển tải nước sạch có áp .



- Chất lượng kết cấu công trình đảm bảo yêu cầu kỹ thuật, quy cách, hình dáng, kích thước bản vẽ thiết kế.

### 2.3. Khối lượng xây lắp:

\* Chiều dài tuyến:

- Theo biểu khối lượng hợp đồng:  $L = 10.395\text{m}$ .
- Theo bản vẽ thiết kế:  $L = 10.394,93\text{m}$ .
- Thực tế thi công:  $L = 10.365\text{m}$  (giảm  $29,93\text{m}$  so với thiết kế).

\* Các công trình quản lý vận hành chính:

- Hồ van xả khí: 05 hồ
- Hồ van xả cặn: 01 hồ
- Hồ van khác (tại các vị trí van chặn trên tuyến, trụ cứu hỏa, đồng hồ...): 10 hồ.
- Trụ cấp nước chữa cháy: 04 trụ.
- Đồng hồ điện từ: 02 bộ; Tủ đồng hồ điện từ: 02 bộ.

### 3. Các vấn đề khác/Other issues:

Không

### IV. Kết luận/Conclusion:

Các bên tham gia đồng ý nghiệm thu hoàn thành hạng mục công trình và đưa vào sử dụng tuyến LB1: HDPE D315 –  $L = 10.365\text{m}$ .

**Chủ đầu tư**

*Representative of the Client*

**Tư vấn giám sát**

*Representative of the Supervision Consultant*



**TRƯỞNG ĐOÀN TƯ VẤN**  
**Antti M. Nykänen**

**Nhà thầu thi công**

*Representative of the Construction Contractor*



TUQ. TỔNG GIÁM ĐỐC  
PHÓ TỔNG GIÁM ĐỐC  
**Trương Huy Hải**

**Tư vấn thiết kế**

*Representative of the Design Consultant*



GIÁM ĐỐC  
**Lai Minh Tâm**

**Hồ sơ nghiệm thu gồm:**

- Hồ sơ thanh toán hạng mục hoàn thành công trình tuyến LB1.
- Bản vẽ hoàn công tuyến LB1.
- Các văn bản nghiệm thu chất lượng.



CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM

SOCIALIST REPUBLIC OF VIETNAM

Độc lập - Tự do - Hạnh phúc

Independence – Freedom – Happiness

Thừa Thiên Huế, ngày/day 05 tháng/month 12 năm/year 2019

Biên bản số: 01/ Minute No. 01 –CPC/CW03-IHM

**NGHIỆM THU HOÀN THÀNH HẠNG MỤC CÔNG TRÌNH XÂY DỰNG**

**ACCEPTANCE OF CONSTRUCTION COMPONENTS FINISHING**

Công trình/*Works*: Cung cấp và lắp đặt các tuyến ống gang dẻo và phụ kiện có đường kính từ D400 – D1200.

Thuộc/*Package*: Dự án cấp nước Thừa Thiên Huế giai đoạn 2011-2015, tầm nhìn 2020.

Hạng mục/*Item*: Phiếu số 1 – Hạng mục chung

Địa điểm/*Location*: Thành phố Huế, tỉnh Thừa Thiên Huế

**1. Thành phần trực tiếp tham gia nghiệm thu/Acceptance Team:**

**Đại diện Chủ đầu tư/Representative of Client:**

Họ và tên/*Name*: Trương Công Nam

Chức vụ/*Title*: CT-HĐQT - Trưởng Ban QLDA

Họ và tên/*Name*: Trần Văn Thọ

Chức vụ/*Title*: Phó TGD-Phó Trưởng Ban QLDA

Họ và tên/*Name*: Nguyễn Văn Duy

Chức vụ/*Title*: Giám đốc xí nghiệp xây lắp

**Đại diện tư vấn giám sát/Representative of Supervision Consultant:**

Họ và tên/*Name*: Nguyễn Thanh Thế

Chức vụ/*Title*: Phó Đoàn Tư vấn giám sát

Họ và tên/*Name*: Vũ Văn Nga

Chức vụ/*Title*: Tư vấn giám sát

**Đại diện Nhà thầu thi công xây dựng /Representative of Construction Contractor:**

Họ và tên/*Name*: Nguyễn Văn An

Chức vụ/*Title*: Tổng Giám đốc

Họ và tên/*Name*: Nguyễn Mạnh Toàn

Chức vụ/*Title*: Phó chỉ huy trưởng

**2. Thời gian tiến hành nghiệm thu/Date of Acceptance:**

Bắt đầu/*Start*: 9h30 ngày/day 05 tháng/month 12 năm/year 2019

Kết thúc/*End*: 10h00 ngày/day 05 tháng/month 12 năm/year 2019

Tại/*At*: Văn phòng Ban điều hành công trường Nhà thầu.

**3. Đánh giá công việc xây dựng đã thực hiện/Assessment of implemented construction work:**

**\* Các công việc đã hoàn thành:**

Số mục	Nội dung công việc	Đơn vị	Giá trị hợp đồng (vnđ)	Giá trị hoàn thành (vnđ)
I	Phiếu số 1: Hạng mục chung			
1	Báo lãnh thực hiện hợp đồng	LS	252.938.273	
2	Bảo hiểm công trình	LS	252.938.273	195.113.054
3	Bảo hiểm thiết bị của nhà thầu	LS	252.938.273	10.000.000
4	Bảo hiểm bên thứ ba	LS	72.000.000	3.080.000

Số mục	Nội dung công việc	Đơn vị	Giá trị hợp đồng (vnd)	Giá trị hoàn thành (vnd)
5	Chi phí xây nhà tạm tại hiện trường để ở và điều hành thi công	LS	379.407.409	379.407.409
6	Chi phí một số công tác không xác định được khối lượng thiết kế (bao gồm chi phí thực hiện kế hoạch bảo vệ môi trường)	LS	252.938.273	252.938.273
7	Quản lý và phân luồng giao thông	LS	126.469.136	126.469.136
<b>Tổng</b>			<b>1.589.629.637</b>	<b>967.007.872</b>

3.1) Tài liệu làm căn cứ/*Basis of Acceptance*

- Hợp đồng số: HUE-CW03, ký ngày 09 /08/2017, Phụ lục 01 ngày 08/03/2018, Phụ lục 02 ngày 08/11/2019

3.2) Qui chuẩn, Tiêu chuẩn, qui phạm được áp dụng/*Standards, norms:*

- Nghị định 46/2015/NĐ-CP ngày 12 tháng 5 năm 2015
- TCVN 4717-89: Thiết bị sản xuất, che chắn an toàn - yêu cầu chung về an toàn
- TCVN 4055-2012: Tổ chức thi công;
- TCVN 10117 -2013: Ống, phụ tùng nối ống, phụ kiện bằng gang dẻo hoặc ISO 2531:2009
- QCVN 05:2009/NTNMT- Qui chuẩn kỹ thuật Quốc gia về chất lượng không khí xung quanh;
- QCVN 06:2009/NTNMT- Chất lượng không khí – Nồng độ tối đa cho phép của một số chất độc hại trong môi trường không khí xung quanh.
- QCVN 26:2010/BTNMT - Quy chuẩn kỹ thuật quốc gia về tiếng ồn;
- QCVN 27:2010/BTNMT - Quy chuẩn kỹ thuật quốc gia về độ rung.
- QCVN 08:2008/BTNMT - Quy chuẩn kỹ thuật quốc gia về chất lượng nước mặt;
- QCVN 09:2008/BTNMT - Quy chuẩn kỹ thuật quốc gia về chất lượng nước ngầm;
- QCVN 14:2008/BTNMT - Quy chuẩn kỹ thuật quốc gia về nước thải sinh hoạt;
- QCVN 18: 2014/BXD – Quy chuẩn kỹ thuật quốc gia về An toàn trong xây dựng.

3.3) Chất lượng công việc xây dựng/*Quality of Construction*

- Đảm bảo yêu cầu kỹ thuật, quy định của hợp đồng.
- Tuân thủ các tiêu chuẩn, quy chuẩn kỹ thuật đã nêu.

3.4) Các vấn đề khác/*Other issues*

- Không có vấn đề khác.

3.5) Ý kiến của Giám sát thi công xây dựng/*Comments of Construction Supervision Consultant*

- Đồng ý nghiệm thu hoàn thành các công việc trong hạng mục chung như đã nêu trong bảng trên.

107/10  
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 NƯỚC  
 HUE  
 /ATH

#### 4. Kết luận/Conclusion:

Thống nhất nghiệm thu hoàn thành hạng mục công trình: Các công việc trong Phiếu 1 - Hạng mục chung như đã nêu trong biên bản.


**Tư vấn giám sát**  
*Representative of the Supervision Consultant*

  
Ký: Nguyễn Thanh Chế

**Đại diện Chủ đầu tư**  
*Representative of the Client*

  
CHỦ TỊCH HĐQT  
Trương Công Nam

**Đại diện Nhà thầu**  
*Representative of the Construction Contractor*

  
TỔNG GIÁM ĐỐC  
NGUYỄN VĂN AN

#### Hồ sơ nghiệm thu gồm:

*Acceptance Documents includes:*

*Quyển 1: Bảng giá trị - khối lượng cung cấp và xây lắp hoàn thành đề nghị thanh toán kỳ này.*

*Quyển 2: Biên bản nghiệm thu khối lượng vật tư và xây lắp hoàn thành.*

*Quyển 3: Lấy mẫu thí nghiệm và kết quả kiểm định chất lượng công trình.*



## ANNEX 2: RESULT OF MONITORING TREATED WATER OF THE SUBPROJECT

SỞ Y TẾ TỈNH THỪA THIÊN HUẾ  
 TRUNG TÂM KIỂM NGHIỆM  
 THUỐC, MỸ PHẨM, THỰC PHẨM

17 Trương Định - TP Huế  
 ĐT/Fax: 0234.3936272

Số: 20DV764

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



### PHIẾU KẾT QUẢ KIỂM NGHIỆM

Tên mẫu: Nước sạch mạng Lộc An

Nơi sản xuất: Công ty cổ phần cấp nước Thừa Thiên Huế  
 103 Bùi Thị Xuân, thành phố Huế

Mô tả mẫu: Mẫu đựng trong chai P.E kín. Ngày sản xuất: 30/06/2020

Thời gian lưu mẫu: Theo thủ tục Xử lý đối tượng thử nghiệm KNH/TT/7.4-01

Nơi gửi mẫu: Công ty cổ phần cấp nước Thừa Thiên Huế  
 103 Bùi Thị Xuân, thành phố Huế

Ngày nhận mẫu: 30/06/2020

Kết quả kiểm nghiệm:

STT	Tên chỉ tiêu	Đơn vị	Phương pháp thử	Kết quả
1	Hàm lượng Hydro Sulfua	mg/l	TCVN 4567:1988	KPH (< 0,04)
2	Hàm lượng Chì	mg/l	ISO 15586:2003	KPH (< 5,08.10 <sup>-3</sup> )
3	Hàm lượng Asen	mg/l	ISO 15586:2003	KPH (< 5,67.10 <sup>-3</sup> )
4	Hàm lượng Natri	mg/l	TCVN 6196-1:1996	1,3
5	Hàm lượng Thủy ngân	mg/l	TCVN 7877:2008	KPH (< 0,62.10 <sup>-3</sup> )
6	Hàm lượng Phenol và dẫn xuất phenol	µg/l	US EPA 8041A	KPH (< 0,3)
7	Hàm lượng Benzen	µg/l	US EPA 5021	KPH (< 0,63)
8	Hàm lượng Benzo(a)pyren	µg/l	US EPA 5021	KPH (< 0,5)
9	Hàm lượng Monoclorobenzen	µg/l	US EPA 524.2	KPH (< 60,0)
10	Hàm lượng Monocloramin	µg/l	US EPA 524.2	KPH (< 0,9)
11	Hoạt độ phóng xạ α tổng	Bq/L	SMEWW 7110 B	KPH (< 0,1)
12	Hoạt độ phóng xạ β tổng	Bq/L	SMEWW 7110 B	KPH (< 1,0)

Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng định lượng của phương pháp thử)

Thừa Thiên Huế, ngày 15 tháng 07 năm 2020

GIÁM ĐỐC  
 TRUNG TÂM  
 KIỂM NGHIỆM  
 THUỐC MỸ PHẨM  
 THỰC PHẨM  
 THỪA THIÊN HUẾ  
 Đặng Văn Khánh

- (\*): Chỉ tiêu được thực hiện bởi nhà thầu phụ; (\*\*) : Phép thử chưa được BoA công nhận  
 - Thông tin về mẫu và nơi gửi mẫu do khách hàng cung cấp  
 - Kết quả kiểm nghiệm chỉ có giá trị đối với mẫu đem thử  
 - Trung tâm không nhận khiếu nại trong trường hợp không có mẫu thử

**CÔNG TY CỔ PHẦN CẤP NƯỚC THỪA THIÊN HUỆ**  
**Thua Thien Hue Water Supply Joint Stock Company**  
**KẾT QUẢ PHÂN TÍCH THÁNG 06/2020 MẠNG LỘC AN**  
**TEST REPORTS**



STT No	TÊN CHỈ TIÊU Test properties	ĐƠN VỊ Unit	QCVN 01-1:2018/BYT	KẾT QUẢ Test Results
1	Độ đục	NTU	2	0.08
2	Màu sắc	TCU	15	1
3	Mùi, vị	-	Không có mùi, vị lạ	Không có mùi, vị lạ
4	pH	-	Trong khoảng 6,0- 8,5	7.2
5	Clo dư tự do(**)	mg/L	Trong khoảng 0,2 - 1,0	0.3
6	Amoni (NH <sub>3</sub> và NH <sub>4</sub> <sup>+</sup> tính theo N)	mg/L	0,3	0.002
7	Chỉ số pecmanganat	mg/L	2	0.32
8	Chloride (Cl) <sup>(***)</sup>	mg/L	250 (hoặc 300)	8
9	Nitrat (NO <sub>3</sub> <sup>-</sup> tính theo N)	mg/L	2	0.3
10	Nitrit (NO <sub>2</sub> <sup>-</sup> tính theo N)	mg/L	0,05	0.002
11	Sắt (Ferrum) (Fe)	mg/L	0,3	0.02
12	Mangan (Mn)	mg/L	0,1	0.01
13	Coliform	CFU/100 mL	3	0
14	E.Coli hoặc Coliform chịu nhiệt	CFU/100 mL	1	0
15	Đồng (Cuprum) (Cu)	mg/L	1	0.004
16	Độ cứng, tính theo CaCO <sub>3</sub>	mg/L	300	21
17	Fluor (F)	mg/L	1.5	0.05
18	Nhôm (Aluminium) (Al)	mg/L	0.2	0.075
19	Nickel (Ni)	mg/L	0,07	0.014

20	Sunphat	mg/L	250	1
21	Tổng chất rắn hòa tan (TDS)	mg/L	1000	40
22	Xyanua (CN)	mg/L	0,05	0.001

**\* Nhận xét:** Chất lượng nước tại nhà máy đều đạt QCVN 01-1:2018/BYT (Quy chuẩn kỹ thuật quốc gia về chất lượng nước sạch sử dụng cho mục đích sinh hoạt).

**TỔNG GIÁM ĐỐC**  
General Director

**TP. QUẢN LÝ CHẤT LƯỢNG NƯỚC**  
Manager of WQM Dept.

**MAI XUÂN TÂN**



**SỞ Y TẾ TỈNH THỪA THIÊN HUẾ**  
**TRUNG TÂM KIỂM NGHIỆM**  
**THUỐC, MỸ PHẨM, THỰC PHẨM**

17 Trương Định - TP Huế  
 ĐT/Fax: 0234.3936272

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

Số: 20DV762



## PHIẾU KẾT QUẢ KIỂM NGHIỆM

**Tên mẫu:** Nước sạch mạng Huế

**Nơi sản xuất:** Công ty cổ phần cấp nước Thừa Thiên Huế  
 103 Bùi Thị Xuân, thành phố Huế

**Mô tả mẫu:** Mẫu đựng trong chai P.E kín. Ngày sản xuất: 30/06/2020

**Thời gian lưu mẫu:** Theo thủ tục Xử lý đối tượng thử nghiệm KNH/TT/7.4-01

**Nơi gửi mẫu:** Công ty cổ phần cấp nước Thừa Thiên Huế  
 103 Bùi Thị Xuân, thành phố Huế

**Ngày nhận mẫu:** 30/06/2020

**Kết quả kiểm nghiệm:**

STT	Tên chỉ tiêu	Đơn vị	Phương pháp thử	Kết quả
1	Hàm lượng Hydro Sulfua	mg/l	TCVN 4567:1988	KPH (< 0,04)
2	Hàm lượng Chì	mg/l	ISO 15586:2003	KPH (< 5,08.10 <sup>-3</sup> )
3	Hàm lượng Asen	mg/l	ISO 15586:2003	KPH (< 5,67.10 <sup>-3</sup> )
4	Hàm lượng Natri	mg/l	TCVN 6196-1:1996	2,3
5	Hàm lượng Thủy ngân	mg/l	TCVN 7877:2008	KPH (< 0,62.10 <sup>-3</sup> )
6	Hàm lượng Phenol và dẫn xuất phenol	µg/l	US EPA 8041A	KPH (< 0,3)
7	Hàm lượng Benzen	µg/l	US EPA 5021	KPH (< 0,63)
8	Hàm lượng Benzo(a)pyren	µg/l	US EPA 5021	KPH (< 0,5)
9	Hàm lượng Monoclorobenzen	µg/l	US EPA 524.2	KPH (< 60,0)
10	Hàm lượng Monocloramin	µg/l	US EPA 524.2	KPH (< 0,9)
11	Hoạt độ phóng xạ α tổng	Bq/L	SMEWW 7110 B	KPH (< 0,1)
12	Hoạt độ phóng xạ β tổng	Bq/L	SMEWW 7110 B	KPH (< 1,0)

Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng định lượng của phương pháp thử)

Thừa Thiên Huế, ngày 15 tháng 07 năm 2020



*Dặng Văn Khánh*

- (\*): Chỉ tiêu được thực hiện bởi nhà thầu phụ; (\*\*): Phép thử chưa được Bộ A công nhận  
 - Thông tin về mẫu và nơi gửi mẫu do khách hàng cung cấp  
 - Kết quả kiểm nghiệm chỉ có giá trị đối với mẫu đem thử

**CÔNG TY CỔ PHẦN CẤP NƯỚC THUA THIÊN HUE**  
**Thua Thien Hue Water Supply Joint Stock Company**  
**KẾT QUẢ PHÂN TÍCH THÁNG 06/2020 MẠNG HUE**  
**TEST REPORTS**



STT No	TÊN CHỈ TIÊU Test properties	ĐƠN VỊ Unit	QCVN 01-1:2018/BYT	KẾT QUẢ Test Results
1	Độ đục	NTU	2	0.12
2	Màu sắc	TCU	15	2
3	Mùi, vị	-	Không có mùi, vị lạ	Không có mùi, vị lạ
4	pH	-	Trong khoảng 6,0 - 8,5	7.5
5	Clo dư tự do(**)	mg/L	Trong khoảng 0,2 - 1,0	0.3
6	Amoni (NH <sub>3</sub> và NH <sub>4</sub> <sup>+</sup> tính theo N)	mg/L	0,3	0.04
7	Chỉ số pecmanganat	mg/L	2	0.7
8	Chloride (Cl) <sup>(***)</sup>	mg/L	250 (hoặc 300)	13.8
9	Nitrat (NO <sub>3</sub> <sup>-</sup> tính theo N)	mg/L	2	0.2
10	Nitrit (NO <sub>2</sub> <sup>-</sup> tính theo N)	mg/L	0,05	0.008
11	Sắt (Ferrum) (Fe)	mg/L	0,3	0.02
12	Mangan (Mn)	mg/L	0,1	0.007
13	Coliform	CFU/100 mL	3	0
14	E.Coli hoặc Coliform chịu nhiệt	CFU/100 mL	1	0
15	Đồng (Cuprum) (Cu)	mg/L	1	0.002
16	Độ cứng, tính theo CaCO <sub>3</sub>	mg/L	300	22
17	Fluor (F)	mg/L	1.5	0.04
18	Nhôm (Aluminium) (Al)	mg/L	0.2	0.060
19	Nickel (Ni)	mg/L	0,07	0.025



20	Sunphat	mg/L	250	0
21	Tổng chất rắn hòa tan (TDS)	mg/L	1000	43
22	Xyanua (CN)	mg/L	0,05	0.001

*\* Nhận xét: Chất lượng nước tại nhà máy đều đạt QCVN 01-1:2018/BYT (Quy chuẩn kỹ thuật quốc gia về chất lượng nước sạch sử dụng cho mục đích sinh hoạt).*

**TỔNG GIÁM ĐỐC**  
General Director

**TP. QUẢN LÝ CHẤT LƯỢNG NƯỚC**  
Manager of WQM Dept.

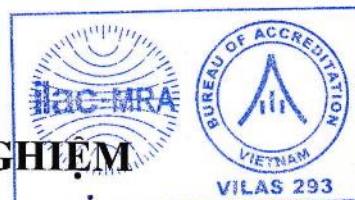
**MAI XUÂN TÂN**

**SỞ Y TẾ TỈNH THỪA THIÊN HUẾ**  
**TRUNG TÂM KIỂM NGHIỆM**  
**THUỐC, MỸ PHẨM, THỰC PHẨM**

17 Trương Định - TP Huế  
 ĐT/Fax: 0234.3936272

**Số: 20DV772**

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



## PHIẾU KẾT QUẢ KIỂM NGHIỆM

**Tên mẫu:** Nước sạch mạng Tứ Hạ

**Nơi sản xuất:** Công ty cổ phần cấp nước Thừa Thiên Huế  
 103 Bùi Thị Xuân, thành phố Huế

**Mô tả mẫu:** Mẫu đựng trong chai P.E kín. Ngày sản xuất: 30/06/2020

**Thời gian lưu mẫu:** Theo thủ tục Xử lý đối tượng thử nghiệm KNH/TT/7.4-01

**Nơi gửi mẫu:** Công ty cổ phần cấp nước Thừa Thiên Huế  
 103 Bùi Thị Xuân, thành phố Huế

**Ngày nhận mẫu:** 30/06/2020

**Kết quả kiểm nghiệm:**

STT	Tên chỉ tiêu	Đơn vị	Phương pháp thử	Kết quả
1	Hàm lượng Hydro Sulfua	mg/l	TCVN 4567:1988	KPH (< 0,04)
2	Hàm lượng Chì	mg/l	ISO 15586:2003	KPH (< 5,08.10 <sup>-3</sup> )
3	Hàm lượng Asen	mg/l	ISO 15586:2003	KPH (< 5,67.10 <sup>-3</sup> )
4	Hàm lượng Natri	mg/l	TCVN 6196-1:1996	2,2
5	Hàm lượng Thủy ngân	mg/l	TCVN 7877:2008	KPH (< 0,62.10 <sup>-3</sup> )
6	Hàm lượng Phenol và dẫn xuất phenol	µg/l	US EPA 8041A	KPH (< 0,3)
7	Hàm lượng Benzen	µg/l	US EPA 5021	KPH (< 0,63)
8	Hàm lượng Benzo(a)pyren	µg/l	US EPA 5021	KPH (< 0,5)
9	Hàm lượng Monoclorobenzen	µg/l	US EPA 524.2	KPH (< 60,0)
10	Hàm lượng Monocloramin	µg/l	US EPA 524.2	KPH (< 0,9)
11	Hoạt độ phóng xạ α tổng	Bq/L	SMEWW 7110 B	KPH (< 0,1)
12	Hoạt độ phóng xạ β tổng	Bq/L	SMEWW 7110 B	KPH (< 1,0)

Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng định lượng của phương pháp thử)

Thừa Thiên Huế, ngày 15 tháng 07 năm 2020



*Dương Văn Khánh*

- (\*): Chỉ tiêu được thực hiện bởi nhà thầu phụ; (\*\*): Phép thử chưa được Bộ A công nhận  
 - Thông tin về mẫu và nơi gửi mẫu do khách hàng cung cấp  
 - Kết quả kiểm nghiệm chỉ có giá trị đối với mẫu đem thử  
 - Trung tâm không nhận trách nhiệm trong trường hợp khách hàng gửi sai mẫu thử



**CÔNG TY CỔ PHẦN CẤP NƯỚC THỦA THIÊN HUE**  
**Thua Thien Hue Water Supply Joint Stock Company**  
**KẾT QUẢ PHÂN TÍCH THÁNG 06/2020 MẠNG TỰ HUA**  
**TEST REPORTS**



STT No	TÊN CHỈ TIÊU Test properties	ĐƠN VỊ Unit	QCVN 01-1:2018/BYT	KẾT QUẢ Test Results
1	Độ đục	NTU	2	0.06
2	Màu sắc	TCU	15	3
3	Mùi, vị	-	Không có mùi, vị la	Không có mùi, vị la
4	pH	-	Trong khoảng 6,0 - 8,5	7.4
5	Clo dư tự do(**)	mg/L	Trong khoảng 0,2 - 1,0	0.4
6	Amoni (NH <sub>3</sub> và NH <sub>4</sub> <sup>+</sup> tính theo N)	mg/L	0,3	0.01
7	Chỉ số pemanganat	mg/L	2	0.32
8	Chloride (Cl <sup>-</sup> )(***)	mg/L	250 (hoặc 300)	8.5
9	Nitrat (NO <sub>3</sub> <sup>-</sup> tính theo N)	mg/L	2	0.4
10	Nitrit (NO <sub>2</sub> <sup>-</sup> tính theo N)	mg/L	0,05	0.003
11	Sắt (Ferrum) (Fe)	mg/L	0,3	0.02
12	Mangan (Mn)	mg/L	0,1	0.004
13	Coliform	CFU/100 mL	3	0
14	E.Coli hoặc Coliform chịu nhiệt	CFU/100 mL	1	0
15	Đồng (Cuprum) (Cu)	mg/L	1	0.002
16	Độ cứng, tính theo CaCO <sub>3</sub>	mg/L	300	24
17	Fluor (F)	mg/L	1.5	0.03
18	Nhôm (Aluminium) (Al)	mg/L	0.2	0.044
19	Nickel (Ni)	mg/L	0,07	0.002

20	Sunphat	mg/L	250	1
21	Tổng chất rắn hòa tan (TDS)	mg/L	1000	36
22	Xyanua (CN)	mg/L	0,05	0.000

*\* Nhận xét: Chất lượng nước tại nhà máy đều đạt QCVN 01-1:2018/BYT (Quy chuẩn kỹ thuật quốc gia về chất lượng nước sạch sử dụng cho mục đích sinh hoạt).*

**TỔNG GIÁM ĐỐC**  
**General Director**

**TP. QUẢN LÝ CHẤT LƯỢNG NƯỚC**  
**Manager of WQM Dept.**

**MAI XUÂN TÂN**

### ANNEX 3: ENVIRONMENTAL REQUIREMENT IN BIDDING DOCUMENT AND THE CONSTRUCTION CONTRACT

	IEE, EMP, kế hoạch tái định cư hoặc Kế hoạch phát triển dân tộc thiểu số, nếu có"
<b>Khoản 4.16</b> <b>Vận chuyển hàng hóa</b>	<p>Thêm đoạn sau:</p> <p>Nhà thầu phải ghi nhận một cách hợp lý về điều kiện các tuyến đường, đất nông nghiệp và hạ tầng khác trước khi bắt đầu vận chuyển vật tư, hàng hóa và thiết bị, và thi công</p>
<b>Khoản 4.18</b> <b>Bảo vệ môi trường</b>	<p>Nhà thầu phải tuân thủ:</p> <p>(a) Đánh giá tác động môi trường, chuẩn bị thay vì ban đầu Môi trường kiểm tra, trong đó có Kế hoạch Quản lý Môi trường (EMP), ngày tháng 9 năm 2011, được sửa đổi, bổ sung vào tháng Tư năm 2012.</p> <p>Nhà thầu phải tuân thủ theo những quy định và luật định về môi trường của địa phương, của tỉnh và của quốc gia.</p> <p>Nhà thầu sẽ (a) thiết lập hệ thống quản lý những tác động môi trường và (b) thực hiện tất cả các biện pháp giảm thiểu và quan trắc như đã nêu trong tài liệu Khảo sát môi trường ban đầu và Kế hoạch quản lý môi trường đính kèm theo trong Phụ lục 10. Nhà thầu phải đệ trình báo cáo 6 tháng về việc thực hiện những biện pháp đó cho Chủ đầu tư</p> <p>(b) Thu hồi đất và tái định cư có bất kỳ tác động không lường trước được nếu xác định trong quá trình thực hiện sẽ được hướng dẫn bởi tái định cư Khung MFF 0054-VIE, phê duyệt trong tháng 9 năm 2011 để chuẩn bị một kế hoạch tái định cư với bộ bồi thường phù hợp với ADB SPS (2009).</p> <p>(c) Nhà thầu phải tuân thủ theo những hành động bảo vệ hoặc sửa chữa như nêu trong báo cáo quan trắc tính an toàn.</p> <p>(d) Nhà thầu sẽ phân bổ ngân sách cho phù hợp với các biện pháp</p>

Chương 6 – Yêu cầu của Chủ đầu tư

**PHẦN 10: GIÁM SÁT MÔI TRƯỜNG**

**PHỤ LỤC 1. Báo cáo môi trường của nhà thầu:**

(Các đại diện của nhà thầu phải đọc kỹ báo cáo dưới đây, và điền đầy đủ thông tin vào các mục để trống và sau đó ký tên vào. Biểu mẫu này sẽ là một phần của hồ sơ dự thầu và hợp đồng xây dựng của nhà thầu được ký với nhà thầu được trúng thầu)

Tôi xin cam đoan đã đọc và hiểu toàn bộ những yêu cầu đề ra trong mục Những yêu cầu kỹ thuật về môi trường nêu trong Hồ sơ dự thầu của gói thầu số:

Tôi xin xác nhận rằng giá dự thầu của chúng tôi đã bao gồm tất cả những chi phí cần thiết để đảm bảo thực hiện Kế hoạch quản lý môi trường của dự án và tuân thủ những yêu cầu kỹ thuật về môi trường nêu trong Hồ sơ mời thầu.

Tôi cũng thông báo rằng nếu hợp đồng xây dựng này được trao cho công ty chúng tôi thì tôi sẽ chỉ định Ông/Bà ... là Chuyên viên môi trường và an toàn lao động cho (các) gói thầu mà chúng tôi dự thầu. Người này sẽ làm việc toàn thời gian tại công trường và sẽ chịu trách nhiệm thực hiện các nhiệm vụ được giao theo Những yêu cầu kỹ thuật về môi trường.

Tôi cũng xin chấp nhận các hình thức xử phạt nếu công ty chúng tôi không tuân thủ các điều kiện đã nêu.

(Ký tên): ..... Ngày

(Họ và tên) .....(Chức vụ trong công ty):.....

**PHỤ LỤC 2. Đối với các nhiệm vụ liên quan đến bảo vệ môi trường, Nhà thầu phải tham khảo Kế hoạch bảo vệ môi trường kèm theo**

#### Chương 6 – Yêu cầu của Chủ đầu tư

3	Bên ngoài ống phủ lớp kẽm có hàm lượng >200g/m <sup>2</sup> , lớp ngoài cùng sơn Bitum dày tối thiểu 100 microns
4	Lớp lót bên trong là lớp vữa xi măng chịu sunphat chống ăn mòn (SRC) theo tiêu chuẩn ISO 4179-2005
5	Mỡ bôi trơn là loại không độc hại do nhà sản xuất cung cấp đồng bộ theo ống

#### Quy định kỹ thuật

Phần 1	Những yêu cầu chung
Phần 2	Công tác đất
Phần 3	Công tác lắp ống và thử áp
Phần 4	Công tác bê tông
Phần 5	Ván khuôn và Bê tông cốt thép
Phần 6	Công tác tái lập mặt đường
Phần 7	Kỹ thuật thép
Phần 8	Dì dờ công trình hiện có
Phần 9	Công tác cảnh quan
Phần 10	Giám sát môi trường