



**KINGDOM OF CAMBODIA**  
NATION RELIGION KING

**PHNOM PENH WATER SUPPLY AUTHORITY**



# FOURTH QUARTERLY REPORT 2022

## **MAJOR STRATEGIC GOALS OF THE PHNOM PENH WATER SUPPLY AUTHORITY AREAS FOLLOW:**

Expand water supply to Phnom Penh's suburban areas and surrounding regions at the same Rate and standard as in Phnom Penh. Analysis the cost and reform the process and procedure to reduce the cost of water, improve staff efficiencies, and build the ability of authority. Maintain a strong commitment to social responsibilities. Engage in Strategic benchmarking compare with the most efficient water supply organization in the world.



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Drilling site for a 2-meter diameter water pipe across the bottom of the Tonle Sap River at Prek Pnov Bridge

# FINANCIAL HIGHLIGHTS

Financial Position		Fourth Quarter 2022	2021	2020
Total assets (KHR'000)		2,684,135,875	2,306,806,174	1,864,618,140
Total liabilities (KHR'000)		1,411,922,828	1,140,177,961	882,565,483
Total shareholders' equity (KHR'000)		1,272,213,047	1,166,628,213	982,052,657

Profit/(Loss)		Fourth Quarter 2022	Fourth Quarter 2021	Fourth Quarter 2020
Total Revenue(KHR'000)		92,266,465	92,676,362	86,884,128
Profit/(Loss) before tax (KHR'000)		24,540,708	33,065,356	33,937,467
Profit/(Loss) after tax (KHR'000)		22,090,605	21,952,861	18,785,810
Total comprehensive income (KHR'000)		22,090,605	21,952,861	18,785,810

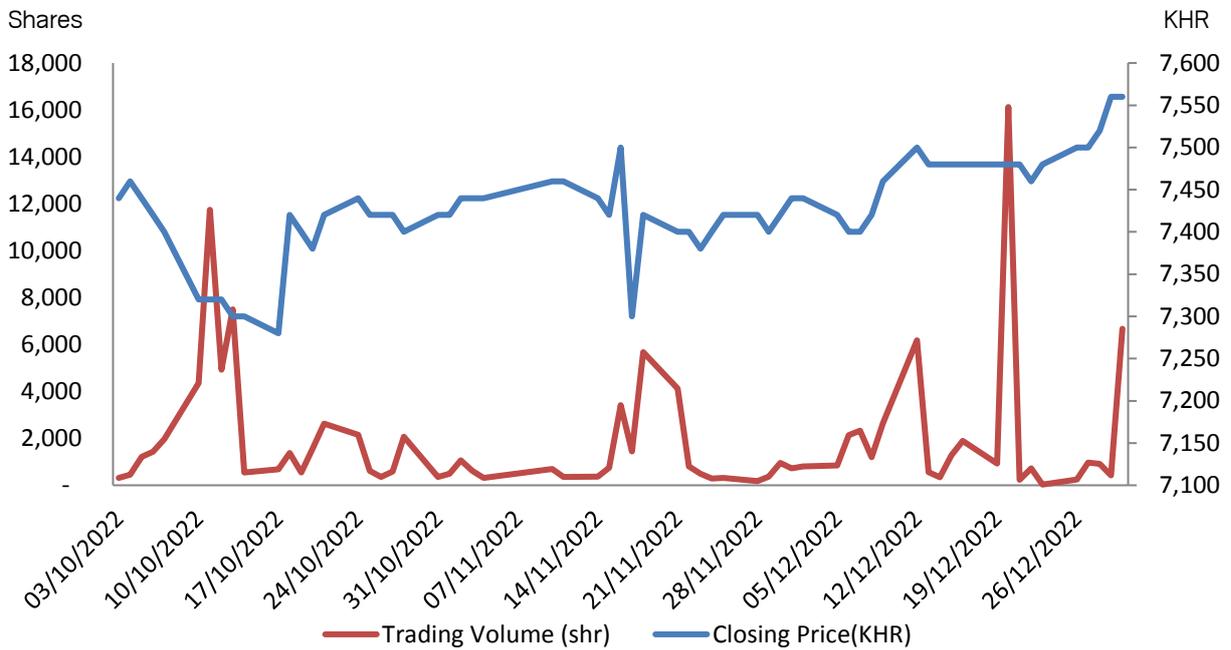
Financial Ratios		Fourth Quarter 2022	2021	2020
Solvency ratio				
Liquidity Ratio	Current Ratio (Times)	2.16	1.65	1.08
	Quick Ratio(Times)	1.43	1.11	0.68

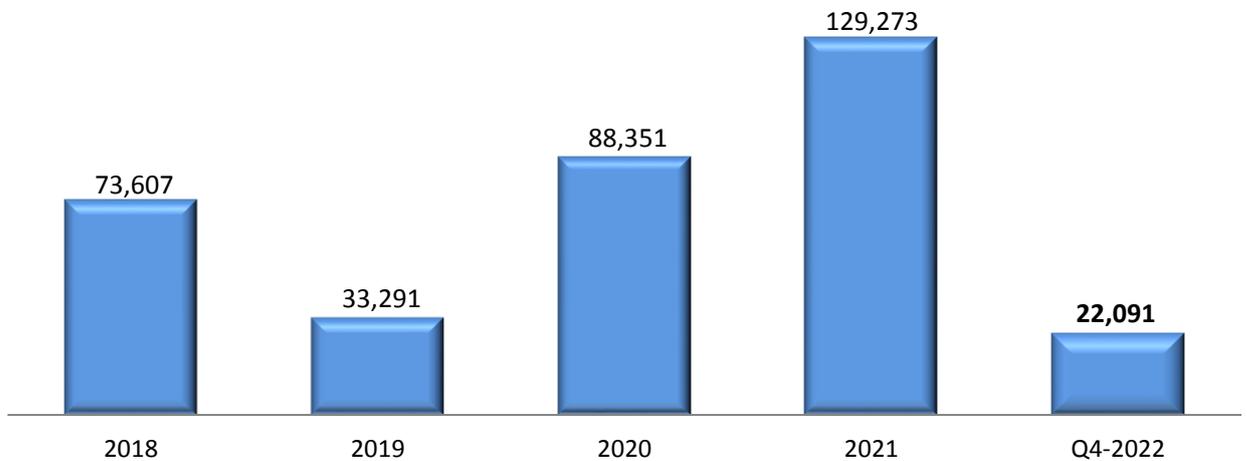
		Fourth Quarter 2022	Fourth Quarter 2021	Fourth Quarter 2020
Profitabilities Ratio	Return on Assets (%)	0.84	0.97	1.03
	Return on Equity (%)	1.75	1.90	1.93
	Gross Profit margin (%)	30.35	31.31	38.41
	Profit Margin (%)	23.94	23.69	21.62
	Earning Per Share (KHR)	253.99	252.41	216.00
Interest Coverage Ratio (Times)		3.36	30.04	8.59

# FINANCIAL SUMMARY CHARTS

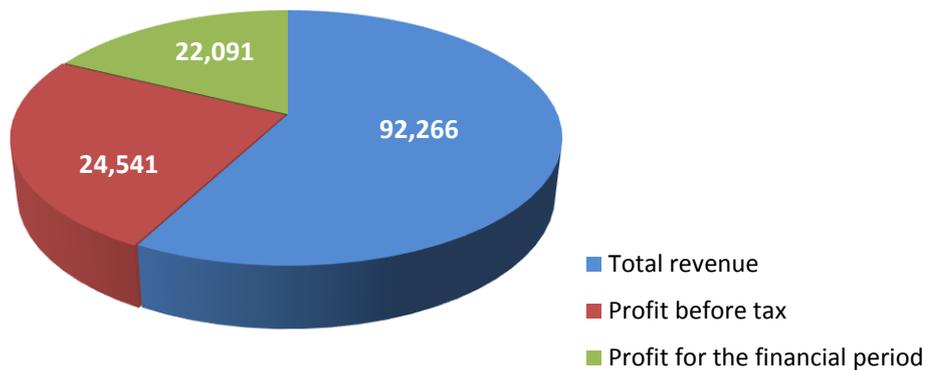
## Changes in stock price (in KHR) and trading volume



## PROFIT FOR EACH YEAR (in million KHR)



## PROFIT FOR THE FOURTH QUARTER OF 2022 (in million KHR)



# BOARD OF DIRECTORS



**H.E. Sim Sitha**

Secretary of State. Ministry of Industry  
Science Technology and Innovation

**Chairman**



**H.E. Long Naro**

Director General Of  
PPWSA

**Member**



**H.E. Mey Vann**

Secretary of State.  
Ministry of Economy and Finance

**Member**



**H.E. Nuon Pharat**

Deputy Governor of the Board  
Of Governors of Phnom Penh

**Member**



**Mr. Ma Noravin**

Representative  
Of PPWSA's employees

**Member**



**Mr. Nam Chantry**

Non-Executive Director  
Representative of Private  
Shareholder

**Member**



**Mr. Sreng Samork**

Independent Director

**Member**

# MESSAGE FROM CHAIRMAN OF THE BOARD



**H.E. Sim Sitha**

Secretary of State, Ministry of Industry  
Science Technology and Innovation

**Chairman**

In the 4<sup>th</sup> quarter of 2022,

By gaining the trust from the Royal Government and the support from the two parent ministries, PPWSA successfully performed all its business activities. We have been continuing to develop its water service from day to day, both in terms of qualities and quantities, to meet the water demand for the population in Phnom Penh and the provincial town of Takmao as well as to contribute to the developments of the two municipalities.

In this quarter, PPWSA reported total revenues of KHR 92,266,465,000 and profit before tax of KHR 24,540,708,000. Net income was KHR 22,090,605,000. While the basic earnings per share was KHR 253.99.

PPWSA invests in, builds, expands, operates and maintains water supply and sanitation facilities; takes all the means to improve its production and service, and assure clean water quality to satisfy the requirements for livings, businesses, services and industries; engages in domestic or oversea businesses and services related to water and sanitation sectors due to the Board's resolutions and the existing laws.

Enhances technical, commercial and financial cooperation with local and international development partners to develop PPWSA based on the Royal Government's policy; maintains financial and operational viability linked to social responsibility; improves staff efficiency and strengthens institutional capacity; conducts cost analysis and reforms the processes and procedures to minimize the costs; and benchmarks its performance against other most effective peers in the world.

## Effective Service

PPWSA keeps supplying clean water that is straight drinkable from the tap on 24x7 basis. In the 4<sup>th</sup> quarter of 2022, we laid the mains and distribution pipes of 116Km, produced 61,697,304m<sup>3</sup> of clean water and installed 6,090 new house connections, of which 408 connections were for the low-income whom we always care for. Furthermore, the water loss accounted for 9.70% due to pipe leakage.

## Performance of the Board of Directors

In the 4<sup>th</sup> quarter of 2022, the Board of Directors for mandate 7 held the 16<sup>th</sup> meeting online via ZOOM on December 23, 2022 at 8:30AM with the following:

1. Request for approval on the Board meeting calendar in 2023  
*The Board approved the following dates for the Board meetings in 2023 :*
  1. March 17, 2023 for the 1st trimester
  2. June 23, 2023 for the 2nd trimester
  3. September 22, 2023 for the 3rd trimester
  4. December 22, 2023 for the 4th trimester
2. Business Report 2022 (10 months actual and 2 months estimate) and Plan for the 1st quarter of 2023  
*The Board :*
  - a) *Totally agreed on Business Plan for the 1st quarter of 2023, part of the Plan 2023, which has already been approved in principle by Ministry of Industry, Science, Technology and Innovation through Letter No. 2091 MISTI/2022 dated 20 October 2022 and by Ministry of Economy and Finance through Letter No. 12403 សហវិ-អនុច dated 15 December 2022 .*
  - b) *Granted supported the initiative on the request for purchasing 5 plots of land including provision of option for sale or exchange as mentioned above by considering on the 3 principles recommended by Ministry of Economy and Finance as stated in the above reference letter to implement the project for the production capacity expansion in accordance with the 3rd Master Plan (2021-2030); and allowed PPWSA to establish an inter-ministerial committee to inspect, study, research and purchase the land as well as the need of sale or exchange of land by properly following the procedures in force and report to the Board of Directors in the next meetings and suggest to request for in-principle permission from parent ministries.*
3. Procurement Report for the 4<sup>th</sup> quarter of 2022  
*The Board totally approved the Procurement Report for the 4<sup>th</sup> quarter of 2022.*
4. Report on Social Fund for the 4<sup>th</sup> quarter of 2022  
*The Board :*
  - a) *Toally agreed to Report on Social Fund for the 4<sup>th</sup> quarter of 2022.*
  - b) *Approved on the proposal to construct a school building with 5 rooms, located in Pursat city, Pursat province, with a approximate budget of USD 60,000.*
  - c) *Granted a support to the PPWSA's initiative on in-depth study on the actual status of water supply at the 8<sup>th</sup> Intervention Brigade which is the alliance of PPWSA .*
5. Internal Audit Report for the 4<sup>th</sup> quarter of 2022  
*The Board totally approved on the Internal Audit Report for the 4<sup>th</sup> quarter of 2022 and approved on the request to select an independent auditor for one-year auditing service on Financial Report and Financial Information for PPWSA in fiscal year 2023 .*

6. Others- Request for approval on the purchasing 5 plots of land for the construction of Intake of Bakheng Water Treatment Plant Stage 3, TECHO International Airport Intake and Water Treatment Plant in Takmao City, and Ksach Kandal Intake and Water Treatment Plant

*The Board has already discussed this agenda in connection with agenda 2 as above.*

PPWSA has a clear strategy to expand the water distribution network to the surrounding areas of Phnom Penh based on the extension of water treatment facilities, keeping the same tariff and standard for Phnom Penh, and a strong commitment to social and environmental responsibility.

In the 1<sup>st</sup> quarter of 2023, PPWSA plans to produce 57,414,700m<sup>3</sup> of clean water, expand 162Km of additional distribution network, and total revenues of KHR 96,927,394,000 with total expenses of KHR 73,983,028,000 as approved by the Board and the 2 parent ministries.

## **Acknowledgement**

We would like to express our deep gratitude to the Royal Government, the two tutelary ministries-Ministry of Industry, Science, Technology and Innovation, and Ministry of Economy and Finance, Securities and Exchange Committee of Cambodia, and all the shareholders who always trust and support PPWSA.

We are also proud and thankful to PPWSA's staff at all levels, who worked hard and responsibly to achieve the best results.

Phnom Penh, February 13<sup>th</sup>, 2023

**CHAIRMAN**

**Sim Sitha**

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## PART1: General Information of PPWSA

### A. Identification of the Phnom Penh Water Supply Authority

- ◆ Name in Khmer: រដ្ឋាករទឹកស្វយ័តក្រុងភ្នំពេញ (រ.ទ.ស.ភ)
- ◆ Name in Latin: Phnom Penh Water Supply Authority (PPWSA)
- ◆ Standard Code: KH1000010004
- ◆ Address: Office No.45, St. 106, Sangkat Srah Chork, Khan Daun Penh, Phnom Penh, Cambodia
- ◆ Phone number: (855)31 322 6345
- ◆ Website: [www.ppwsa.com.kh](http://www.ppwsa.com.kh) Email: [ir@ppwsa.com.kh](mailto:ir@ppwsa.com.kh)
- ◆ Company Registration Number: Co.0839Et/2012 Date: March 27<sup>th</sup>, 2012
- ◆ License number: Sub-decree No. 52 ANKr.BK Issued by: The Royal Government of Cambodia  
Date: December 19<sup>th</sup>, 1996
- ◆ Disclosure document registration number by SERC: 012/12 SECC/SSR Date: March 23<sup>rd</sup>, 2012
- ◆ Representative: **H.E. LONG NARO**

### B. Nature of Business

- ◆ Invest in, build, expand, operate, repair and maintain water supply and sanitation facilities.
- ◆ Take all the means to improve its production and service, and assure clean water quality to satisfy the requirements for living, businesses, services and industries. Engage in domestic or overseas business and services related to water and sanitation sectors due to the Board of Directors's resolutions and the existing laws.
- ◆ Enhance technical, commercial and financial corporations with local and international development partners to develop PPWSA in accordance with the Royal Government's policies.
- ◆ Maintain financial and operational sustainability pertaining to social interests.
- ◆ Expand water supply to Phnom Penh's suburban areas and surrounding regions at the same rate and standard as in Phnom Penh.
- ◆ Improve staff efficiency and continue to build the capacity of the enterprise.
- ◆ Analyze cost factors and reform processes and procedures to reduce water costs.
- ◆ Strategically compare with the most efficient water utilities in the world.
- ◆ Strong commitment to social and environmental responsibility.

## PART 2. Information on Business Operation Performance

### A. Business Operation Performance including business segments information

#### A.1. Water Treatment and Distribution System and Water Loss Reduction

##### A.1.1. Water Treatment

➤ The water treatment in the fourth quarter 2022 as follows:

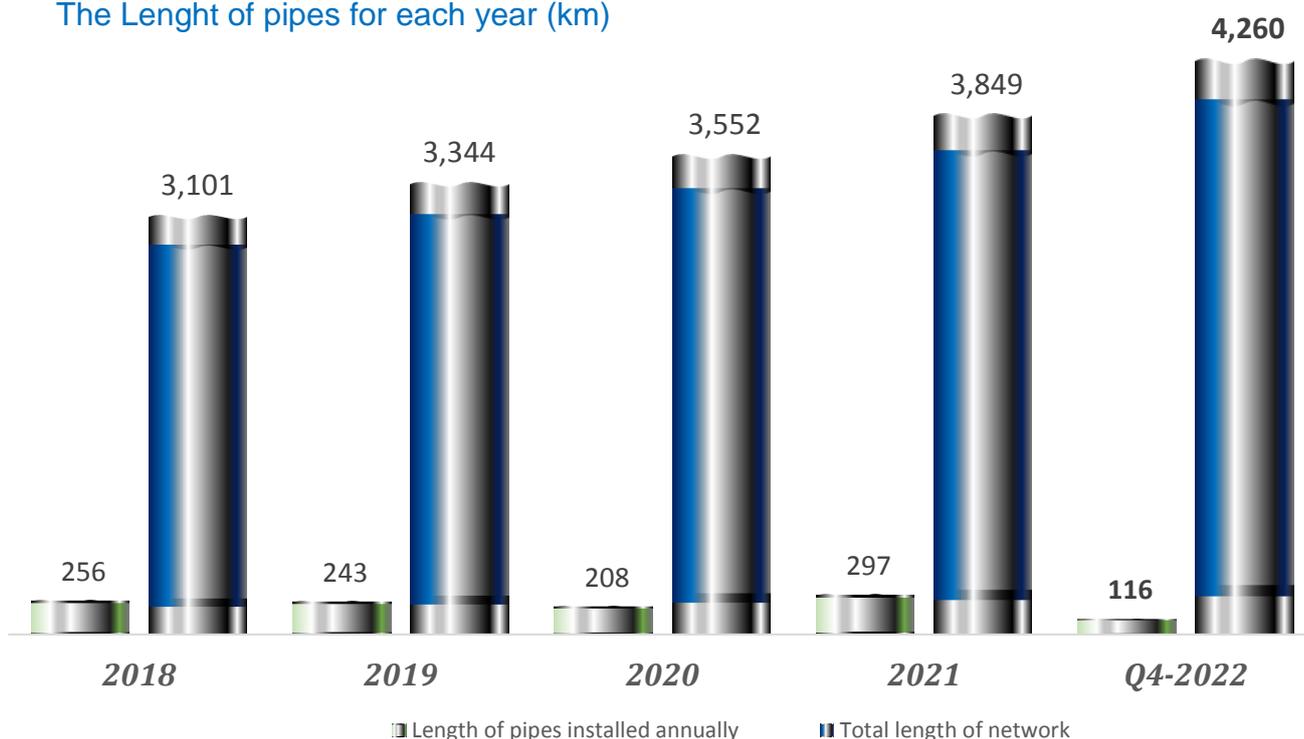
Description	Plan (m <sup>3</sup> )	Actual (m <sup>3</sup> )	Rate (%)
Phum Prek	14,812,000	15,711,515	106
Chroy Chang War	14,906,000	16,412,330	110
Chamkar Mon	4,890,500	5,389,988	110
Niroth	23,767,000	24,005,720	101
Mlech	99,636	112,696	113
Thbong Khmom	110,400	65,055	59
<b>TOTAL</b>	<b><u>58,585,536</u></b>	<b><u>61,697,304</u></b>	<b><u>105</u></b>

➤ The quality of treated water at the six water treatment plants and distribution networks

Parameters	Unit	WHO	Phum Prek WTP	Chroy Chang War WTP	Chamka r Mon WTP	Niroth WTP	Mlech WTP	Thbong Khmom WTP	Distribution Pipes
Turbidity	NTU	≤ 5	0.33	0.61	0.24	0.34	0.56	0.43	<b>0.45</b>
pH Value	pH	6.5-8.5	7.29	7.48	7.16	7.09	7.28	7.58	<b>7.22</b>
Free Available Chlorine	mg/l	0.1-1	1.65	1.36	1.17	1.43	1.20	0.84	<b>0.36</b>
Total Available Chlorine	mg/l	<2	1.87	1.55	1.36	1.59	1.42	1.02	<b>0.49</b>
Total coliforms	cfu/100ml	0	0	0	0	0	0	0	<b>0</b>
E. Coli	cfu/100ml	0	0	0	0	0	0	0	<b>0</b>

##### A.1.2. Pipes Laying

The Length of pipes for each year (km)

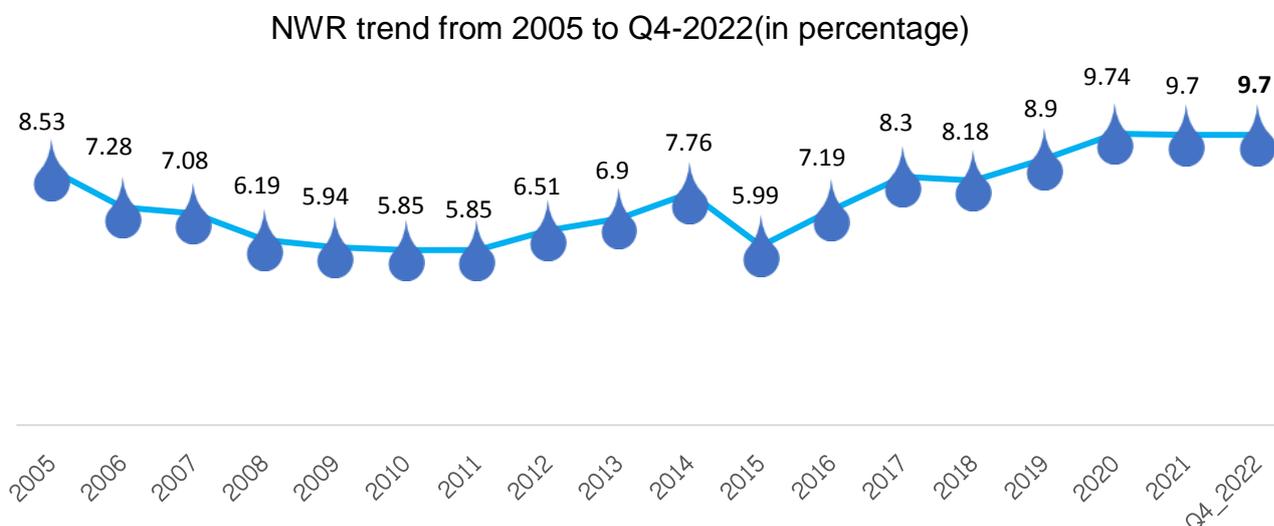


## A. Business Operation Performance including business segments information (con't)

### A.1. Water Treatment and Distribution System and Water Loss Reduction (con't)

#### A.1.3. Water Loss Reduction

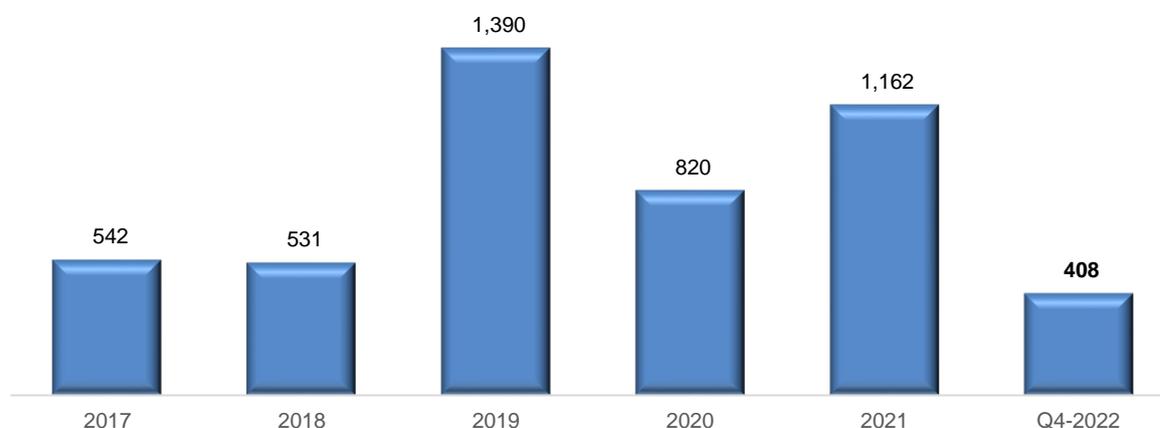
In the fourth quarter 2022, PPWSA's water loss rate was kept in single digits 9.70%, as shown in the graph below.



## A.2. Business Activities and Results

### A.2.1. Water Supply for low-income household

#### low-income household connections

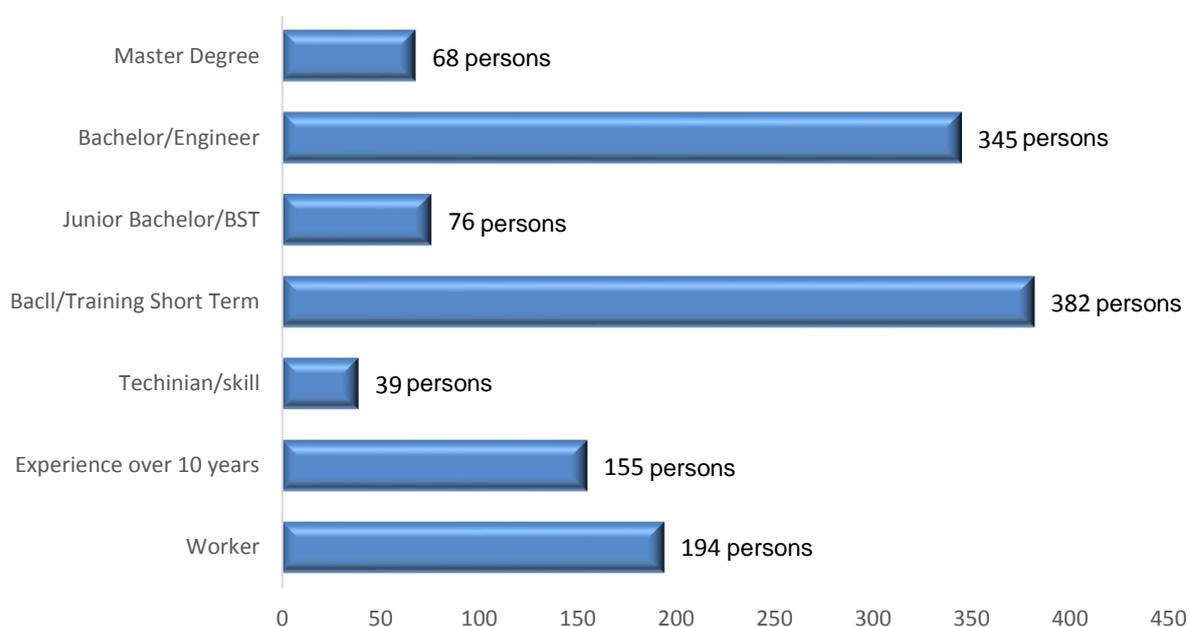


### A.2.2. House Connection and Customer Management

Type of Customers	2018	2019	2020	2021	Q4-2022	
	(Connections)	(Connections)	(Connections)	(Connections)	(Connections)	(%)
Domestic	301,834	321,212	333,099	350,463	360,948	79.9346
Commercial	58,789	62,366	68,136	74,344	83,874	18.5745
Administrative	664	696	744	823	913	0.2022
Wholesalers	07	07	10	11	09	0.0020
RDE Representative	21	17	14	16	05	0.0011
Standpipe	14	17	17	16	16	0.0035
Room rental	5,703	5,752	5,759	5,728	5,789	1.2820
<b>TOTAL</b>	<b>367,032</b>	<b>390,067</b>	<b>407,779</b>	<b>431,401</b>	<b>451,554</b>	

## A. Business Operation Performance including business segments information (con't)

### A.3- Human Resource Management



### B- Revenue Structure

No	Source of Revenue	Q4-2022		Q4-2021		Q4-2020	
		(KHR'000)	%	(KHR'000)	%	(KHR'000)	%
1	Sales	79,607,062	86.28	76,670,760	82.73	76,590,280	88.15
2	Construction Service fees	11,476,698	12.44	6,709,409	7.24	8,333,304	9.59
3	Foreign exchange gains-net	-	-	1,652,286	1.78	-	-
4	Other income	1,182,705	1.28	7,643,907	8.25	1,960,544	2.26
	<b>Total revenue</b>	<b>92,266,465</b>		<b>92,676,362</b>		<b>86,884,128</b>	

**PART 3:  
FINANCIAL STATEMENT  
REVIEW BY  
THE EXTERNAL AUDITOR**

**CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND  
TWELVE-MONTH PERIOD ENDED 31 DECEMBER 2022**

**ATTACHED AS APPENDIX I**

## PART 4: Management's Discussion and Analysis

### A. Overview of operations

#### 1. Revenue analysis

PPWSA generates revenues from three main sources – water sales, construction service fees and other incomes.

- Water sales revenue is sourced from water consumption – domestic / households, commercial and industrial, administrative, rented rooms, and wholesalers. This revenue is reported net of discounts, allowances and credits and is recognized based on the volume of water supplied to the customers. Water bills are issued every two months.
- Construction service revenue is sourced from the fees of construction services related to the expansion of the distribution network that PPWSA constructs for a construction company.
- Other revenues/incomes are sourced from water meter maintenance charges, sales of water connection materials, penalty charges for unauthorized water use, and others.
  - Water meter maintenance revenue is generated from the monthly meter maintenance charge on a basis of KHR50 per 1 mm of water meter diameter. This revenue is used to cover the cost of future replacement of water meters for the customers.
  - Plumbing material sales revenue is generated from the sale of water meters, pipes and fittings.
  - Penalty fees is a revenue generated from penalties for customers' late payments penalties and illegal connections.
  - Other revenues are generated from contributions by commercial and industrial customers for installing special network connections into their properties and fees earned for collection of sewerage maintenance charges on behalf of Phnom Penh Municipality.

➤ The period ended 31 December 2022 compared to the period of 31 December 2021

Description	Fourth quarter 2022 (KHR'000)	Fourth quarter 2021 (KHR'000)	Changes(KHR'000/Percentage)	
Total Revenues	92,266,465	92,676,362	(409,897)	(0.44%)

PPWSA has a total revenue of KHR 92,266,465,000 for the period ended 31 December 2022 and KHR 92,676,362,000 at 31 December 2021. The revenue decreased by KHR 409,897,000 or 0.44%. We can see that the main factor of this decrease in revenue is due to other revenue decreased by about KHR 6,461,202,000 and foreign exchange gain-net decreased by KHR 1,652,286,000.

#### 2. Revenue analysis by segment

The analysis of PPWSA's revenue by segment are shown as below:

Description	Fourth quarter 2022 (KHR'000)	%	Fourth quarter 2021 (KHR'000)	%
Sale	79,607,062	86.28	76,670,760	82.73
Construction service fee	11,476,698	12.44	6,709,409	7.24
Foreign Exchange gains-net	-	-	1,652,286	1.78
Other income	1,182,705	1.28	7,643,907	8.25

## A. Overview of operations (Con't)

### 2. Revenue analysis by segment (Con't)

The following are the only analysis of significant revenue streams by segment:

- The period ended 31 December 2022 compared to the period of 31 December 2021

Description	Fourth quarter 2022		Fourth quarter 2021		Changes		
	Volume	Amount	Volume	Amount	Volume	Amount	%
	(M <sup>3</sup> )	(KHR'000)	(M <sup>3</sup> )	(KHR'000)	(M <sup>3</sup> )	(KHR'000)	
Domestic	29,197,285	28,492,401	28,348,033	28,626,918	849,252	(134,517)	(0.47%)
Commercial	23,695,052	44,963,289	19,883,591	35,247,522	3,811,461	9,715,767	27.56%
Public administrative and autonomy	2,619,325	4,998,643	2,071,170	7,224,176	548,155	(2,225,533)	(30.81%)
Representative and room rental	3,086,188	2,901,520	3,011,101	2,627,259	75,087	274,261	10.44%

#### ◆ Revenue from household water sales (Domestic)

Revenue from domestic water sales amounted to KHR 28,492,401,000 for the year ended 31 December 2022 and KHR 28,626,918,000 for the year ended 31 December 2021, that is prompting a decrease by KHR 134,517,000 or 0.47%. The reason of the decrease is that the average tariff declined by KHR 33.98/m<sup>3</sup>, from KHR 1,009.84/m<sup>3</sup> to KHR 975.86/m<sup>3</sup>. On the other hand, the number of connections increased by 10,550 from 350,398 to 360,948 connections and monthly consumption per connection increased by 0.03m<sup>3</sup> from 27.12m<sup>3</sup> to 27.15m<sup>3</sup>.

#### ◆ Revenue from commercial sale

Revenue from commercial water sales amounted to KHR 44,963,289,000 for the year ended of 31 December 2022 and KHR 35,247,522,000 for the year ended of 31 December 2021, that is prompting an increase by KHR 9,715,767,000 or 27.56%. The reason of the increase is that the number of connections ascended by 9,530 from 74,344 to 83,874 connections and monthly consumption per connection ascended by 1.71m<sup>3</sup> from 93.31m<sup>3</sup> to 95.02m<sup>3</sup> and the average tariff ascended by KHR 124.89/m<sup>3</sup> from KHR 1,772.69/m<sup>3</sup> to KHR 1,897.58/m<sup>3</sup>.

#### ◆ Revenue from public administrative water sales

Revenue from public administrative water sales amounted to KHR 4,998,643,000 for the year ended of 31 December 2022 and KHR 7,224,176,000 for the year ended of 31 December 2021, that is prompting a decrease KHR 2,225,533,000 or 30.81%. The reason of the decrease is that monthly consumption per connection ascended by 17.94m<sup>3</sup> from 789.92m<sup>3</sup> to 771.98m<sup>3</sup>. On the other hand, the connections ascended by 90 connections from 823 to 913 connections and water tariff KHR 2,500/m<sup>3</sup>.

#### ◆ Revenue from representative and rent rooms water sales

Revenue from representative and rent rooms water sales amounted to KHR 2,901,520,000 for the year ended of 31 December 2022 and KHR 2,627,259,000 for the year ended of 31 December 2021, that is prompting a increase KHR 274,261,000 or 10.44%. The reason of the increase is that the average tariff ascended by KHR 67.64/m<sup>3</sup> from KHR 872.52/m<sup>3</sup> to KHR 940.16/m<sup>3</sup>, the number of connections from 5,771 to 5,819 connections and monthly consumption per connection ascended by 3.11m<sup>3</sup> from 174.37m<sup>3</sup> to 177.49m<sup>3</sup>.

## A. Overview of operations (Con't)

### 3. Gross profit margin analysis

PPWSA prepared and presented its income statements by nature, without showing gross profit. However, this presentation enables discussions and analyzes on the operating profit which is calculated by subtracting operating expenses from total income.

The details of the operating expenses will be discussed in Item “a-4” below.

### 4. Profit before tax

Profit before tax is derived from the subtraction of operating expenses from the gross revenues and net finance income (expenses). In discussing and analyzing the operating expenses, we considered the total expenses as follows.

➤ The period ended 31 December 2022 compared to the period ended 31 December 2021

Description	Fourth quarter 2022 (KHR'000)	Fourth quarter 2021 (KHR'000)	Changes (KHR'000/Percentage)	
Total revenues	92,266,465	92,676,362	(409,897)	(0.44%)
Depreciation and amortisation charges	(14,846,062)	(14,738,962)	(107,100)	(0.73%)
Electricity costs	(8,579,316)	(8,495,815)	(83,501)	(0.98%)
Salaries, wages and related expenses	(19,016,132)	(17,414,704)	(1,601,428)	(9.20%)
Raw materials for water treatment	(3,463,717)	(2,707,674)	(756,043)	(27.92%)
Construction service expenses	(8,027,104)	(9,153,504)	1,126,400	12.30%
Finance income	4,863,214	4,989,097	(125,883)	(2.52%)
Finance costs	(8,327,789)	(937,182)	(7,390,607)	788.60%
<b>Profit before tax</b>	<b>24,540,708</b>	<b>33,065,356</b>	<b>(8,524,648)</b>	<b>(25.78%)</b>

PPWSA earned profit before tax of KHR 24,540,708,000 at 31 December 2022 and KHR 33,065,356,000 at 31 December 2021 that was decreased by KHR 8,524,648,000 or 25.78%. We can see that the main factor of this decrease in Profit before tax is due to Finance costs-net decreased by about KHR 7,516,490,000 or 185.50%.

### 5. Profit for the financial year

Under the Law on Commercial Enterprises, in the context of duties and taxes, PPWSA had to pay annual taxes at the rate of 20%. This 20% tax is calculated by applying the 20% tax rate on the taxable profit.

## A. Overview of operations (Con't)

### 5. Profit for the financial year (Con't)

➤ The period ended 31 December 2022 compared to the period ended 31 December 2021

Description	Fourth quarter 2022 (KHR'000)	Fourth quarter 2021 (KHR'000)	Changes(KHR'000/Percentage)	
Profit before tax (a)	24,540,708	33,065,356	(8,524,648)	(25.78%)
Tax expense (b)	(2,450,103)	(11,112,495)	8,662,392	77.95%
Profit for the financial year	22,090,605	21,952,861	137,744	0.63%
Total comprehensive income for the financial year	22,090,605	21,952,861	137,744	0.63%
Effective tax reate (b)/(a)	9.98%	33,61%		

PPWSA earned profit for the financial period of KHR 22,090,605,000 at 31 December 2022 and KHR 21,952,861,000 in 31 December 2021, the increased by KHR 137,744,000 or 0.63%. We can see that the main factor of this increased in Profit for the period is due to Sale revenue increased by about KHR 2,936,302,000 or 3.83% and Construction service fee increased by KHR 4,767,289,000 or 71.05% and Profit before tax decreased by KHR 8,524,648,000 quarter on quarter.

### 6. Analysis of factors and trends analysis affecting financial conditions and results

The protracted situation of the war between Russia and Ukraine, as well as the uncertain state of the world economy continues to affect the progress of the global economy and in the region as well, however. PPWSA continues to operate daily and remains profitable in the fourth quarter of 2022. Continuing to maintain this profit as sales revenue continues to grow quarter-on-quarter due to the following supporting factors:

- **NRW rate:** PPWSA utilized an effective mechanism to reduce NRW to 9.70% in this quarter. Maintaining water loss rate to a minimum, it is a critical factor enabling PPWSA to ensure its financial viability and sustainable enterprise development.
- **Increase in customer base:** To generate revenues from water sales, PPWSA increased its customer base, expanding its service coverage to unserved areas by filling up its coverage with distribution networks in Phnom Penh and its surrounding areas, in particular, the economically potential zones.
- **Increase in average water tariff:** Finding new commercial and industrial customers increased PPWSA's average water tariff because the tariff for this customer category is higher than that of other customer categories.
- **Operating expenses management:** PPWSA managed these expenses, especially the electricity consumption cost which is huge and significant in the water treatment process, through the introduction of new technologies such as variable speed distribution pumps. PPWSA Managed the efficient and economical use of raw materials in water treatment.

For operating expenses, PPWSA try to reduce unimportant expenditures such as general administration, maintenance by controlling and maintaining general tools and usage material regularly to ensure the quality and reduce others expenses.

## A- Overview of operations (Con't)

### 5. Profit for the financial year (Con't)

- **Strict practices in procurement process:** PPWSA has strictly adhered to applicable laws, regulation and other guidelines in relation to the procurement process for purchases of material and raw materials. This process is transparent and encourages market price competition, which allows PPWSA to make low cost purchases, without neglecting quality.
- **Cash management:** With the above high collection ratio 99.90%, PPWSA was capable enough to manage its cash efficiently. With this, PPWSA reserved cash as working capital for two-three months, and invested available cash in short-term fixed deposits at commercial banks with high interest rates. PPWSA also scrutinizes risks and benefits associated with the high interest rates.
- **Selection of low-rate financiers:** Due to the increasing water demand, PPWSA is in need of finance for its investment projects, such as construction of WTPs, and laying of transmission and distribution pipes. PPWSA has sought international development partners such as AFD to get the low interest rate financing.
- **Economic situation:** Although the economic situation of Cambodia in 2022 is projected to grow at a rate of 5.3% lower than forecast at the beginning of the year, the war between Russia and Ukraine continues to prolong and uncertain economic growth in China. As a result of the global economy as well as Cambodia, PPWSA's average water prices have not been significantly affected.

## B. Significant Factors Affecting Profit

### 1. Demand and supply conditions analysis

According to a study of water demand relative to population growth in Phnom Penh due to the expansion of the area around Phnom Penh, PPWSA is building a Bak Kheng water treatment plant. Phase 1 with a production capacity of 195,000 m<sup>3</sup> / day and is scheduled to start production in 2023 and is continuing to build the Bak Kheng water treatment plant Phase 2 with the same production capacity of 195,000 m<sup>3</sup> / day and Boeung Thom Water Treatment Plant with a production capacity of 5,000 m<sup>3</sup> / day to complete current and future water demand.

### 2. Variations in prices of raw materials analysis

Variation in prices of raw materials for water treatment might slightly affect the production cost because the portion of this cost is not higher than 10% of the operating expenses. However, PPWSA adhered very strictly to the procurement procedures to ensure the conformity of raw material prices to market prices, and this procedure allows PPWSA to obtain low competitive prices.

### 3. Tax analysis

Under the Law on Commercial Enterprises, in the context of duties and taxes, PPWSA is obliged to pay duties and taxes as stipulated in the existing laws and regulations. PPWSA is required to pay taxes under the real regime tax system and is a large taxpayer determined by the General Department of Taxation.

### 4. Exceptional and extraordinary items analysis

At the end of December 31, 2022, the management believes that PPWSA does not have any unusual and extraordinary elements.

## C. Material changes in sales and revenues

PPWSA's main revenues are the sales of safe water and house connection which is a basic need of Phnom Penh residents. The water sales represented about 86.28% of gross revenue on 30 September 2022. PPWSA is also the monopoly water supplier in Phnom Penh and its outskirts. Revenues may grow, subject to the demography including the enlargement of Phnom Penh capital and the Takhmao city.

## D. Impact of foreign exchange, interest rates and commodity prices

### D.1. Impact of exchange rate

The PPWSA records the accounting using the base currency, the riel, and foreign currency transactions are converted to the base currency at the exchange rates ruling at the dates of the transactions. Gains and losses arising from the settlement of such transactions, changes in assets and liabilities denominated in foreign currencies are recorded in the detailed income statement. For the third quarter of 2022, the depreciation of the riel exchange rate against the foreign exchange rate has resulted in a false loss from the exchange rate on loans. PPWSA is mostly made in riel, so PPWSA is not significantly affected by the exchange rate.

### D.2. Impact of interest rates

#### D.2.1. Impact of interest rate on interest income

Due to the absence of a currency market in Cambodia, PPWSA could afford only short-term investments in 9-12 month fixed deposits at local commercial banks.

#### D.2.2. Impact of interest rate on interest expense

The PPWSA has had two financing sources with floating and fixed interest rates. The fixed-rate financing was received via MEF from ADB at the interest rate of 1.65% per annum, and from JICA at the interest rate of 0.66% per annum. The floating-rate loan is received directly from AFD at the interest rate of 6-month EURIBOR - 1.35%. The interest rate must range from 0.25% to 5.21% per annum.

#### D.2.3. Impact of raw materials prices

Through PPWSA's procurement procedure in compliance with the existing laws and regulations, as well as other guidelines, the Authority has to sign contracts with material and raw material suppliers at a competitive price or negotiable price. The protracted war between Russia and Ukraine has pushed up the prices of raw materials in domestic and foreign markets due to rising fuel prices, unbalanced transportation and supply and demand. Rising prices of materials and raw materials have also affected PPWSA's investment and operating costs. However, despite the increase in the cost of materials and raw materials, the management has carefully considered the plan and the need for raw materials to ensure the timely and affordable use of public procurement laws effective.

## E. Impact of inflation

PPWSA's water tariff remained unchanged from 2001 to 2019. To adjust to the variations in inflation, PPWSA has been implementing the revised tariff since 1 January 2020, and maintained better financial stability.

## F. Economic / Fiscal / Monetary Policies of the Royal Government

PPWSA's business was influenced by a number of the government policies such as:

- **Service coverage expansion:** Further expansion of the water service coverage is restricted due to PPWSA's mission that allows water production and distribution to the public in Phnom Penh only. This restriction is stipulated in Sub-decree No. 52 ANKR.BK, dated 19 December 1996, on the Establishment of PPWSA.

## F. Economic / Fiscal / Monetary Policies of the Royal Government (Con't)

- **Enlargement of Phnom Penh area:** The Royal Government had a policy to enlarge the Phnom Penh area by integrating 20 additional communes into Phnom Penh, which expanded PPWSA service coverage.
- **Immovable property tax policy:** Ministry of Economy and Finance (MEF) has put into force PRAKAS No. 493 សហវិ.ប្រកាស, dated 19 July 2010, on Immovable Property Tax Collection. PPWSA's immovable properties are used to process the water treatment facilities, and tax-exempt according to MEF's Notification No. 006 សហវិ.អំពាវនាវ, dated 18 May 2011.

## PART 5: Other Necessary Information for Investor Protection

PPWSA has been striving to produce quality and safe water for the people who use PPWSA water. In order to build more customer's confidence, In fourth quarter, PPWSA has sent water sample, which produce Chamkar Morn Water Treatment Plant, to TUY SUD PSB Pte Ltd., the independent laboratory of Singapore in order to analyze in 116 parameters as follows:

- |                              |           |
|------------------------------|-----------|
| 1. Microbiological Parameter | 1 test    |
| 2. Physical Parameter        | 6 tests   |
| 3. Chemical Parameter        | 109 tests |

As a result, clean water produced from PPWSA's Chamkar Morn water treatment plant is complied with World Health Organization (WHO) guidelines as well as standard of Drinking-Water Quality, 4th Edition 2011 as attached in the appendix II TEST REPORT 7191297902-01-CHM22-PN.

# SIGNATURE OF DIRECTORS OF PHNOM PENH WATER SUPPLY AUTHORITY

Phnom Penh, February 13<sup>th</sup>, 2023

Read and Approved

---

Signature

Sim Sitha

Chairman of the Board

Phnom Penh, February 13<sup>th</sup>, 2023

Read and Approved

---

Signature

Long Naro

Director

# **APPENDIX I**

**CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND  
TWELVE-MONTH PERIOD ENDED 31 DECEMBER 2022**

**PHNOM PENH WATER SUPPLY AUTHORITY**  
**(Co.0839 Et/2012)**  
(Incorporated in Cambodia)

**CONDENSED INTERIM FINANCIAL INFORMATION**  
**FOR THE QUARTER AND**  
**TWELVE-MONTH PERIOD ENDED 31 DECEMBER 2022**

*Registration No. Co.0839 Et/2012*

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTH PERIOD ENDED 31 DECEMBER 2022**

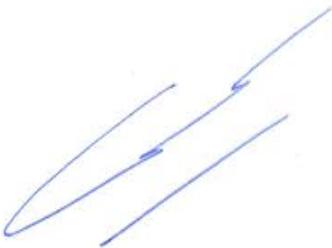
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CONDENSED INTERIM STATEMENT OF FINANCIAL POSITION	2
CONDENSED INTERIM STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME	3
CONDENSED INTERIM STATEMENT OF CHANGE IN EQUITY	4
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**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

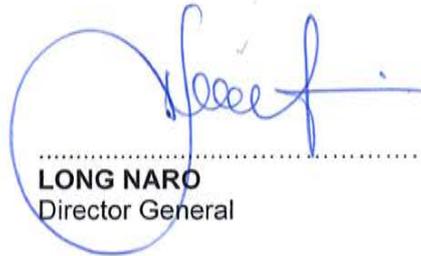
**STATEMENT BY THE DIRECTORS**

In the opinion of the directors, the accompanying condensed interim statement of financial position of Phnom Penh Water Supply Authority as at 31 December 2022, and the related condensed interim statement of profit or loss and other comprehensive income, condensed interim statement of changes in equity and condensed interim statement of cash flows for the quarter and twelve-month period then ended, and notes to the condensed interim financial information (collectively known as "Condensed Interim Financial Information") are presented fairly, in all material respects, in accordance with Cambodian International Accounting Standard 34 *Interim Financial Reporting*.

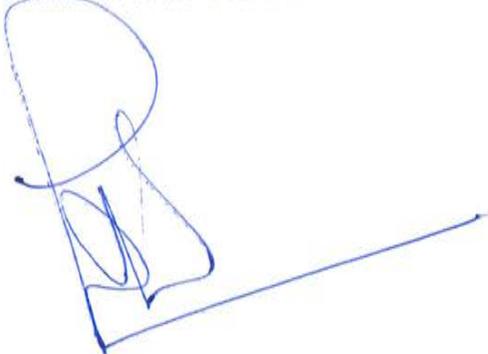
Signed on behalf of the Board of Directors,



.....  
**SIM SITHA**  
Chairman of the Board of Director



.....  
**LONG NARO**  
Director General



.....  
**DENG POLYDEN**  
Deputy Director General  
in charge of Finance

Date: Monday, February 13, 2023

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**CONDENSED INTERIM STATEMENT OF FINANCIAL POSITION**  
**AS AT 31 DECEMBER 2022**

	Note	Unaudited 31.12.2022 KHR'000	Audited 31.12.2021 KHR'000
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment	4	2,203,041,914	1,893,864,619
Intangible assets		12,089,587	12,530,278
<b>Total non-current assets</b>		<b>2,215,131,501</b>	<b>1,906,394,897</b>
<b>Current assets</b>			
Inventories		152,737,078	143,731,508
Trade and other receivables		28,264,940	24,875,167
Contract assets	5	92,768,374	66,024,580
Loan to employees		7,956,651	7,956,651
Short-term investments	6	126,118,416	68,163,833
Cash and cash equivalents		61,158,915	89,659,538
<b>Total current assets</b>		<b>469,004,374</b>	<b>400,411,277</b>
<b>TOTAL ASSETS</b>		<b>2,684,135,875</b>	<b>2,306,806,174</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity attributable to owners of PPWSA</b>			
Share capital and share premium	7	620,759,107	619,315,886
Reserves		543,268,075	418,038,410
Retained earnings		108,185,865	129,273,917
<b>TOTAL EQUITY</b>		<b>1,272,213,047</b>	<b>1,166,628,213</b>
<b>Non-current liabilities</b>			
Borrowings	9	986,495,717	790,359,750
Deferred government and other grants	8	69,238,477	16,812,186
Deferred tax liabilities		77,016,716	72,307,299
Other payables	10	76,801,705	69,446,073
<b>Total non-current liabilities</b>		<b>1,209,552,615</b>	<b>948,925,308</b>
<b>Current liabilities</b>			
Trade and other payables	10	154,661,152	141,969,545
Borrowings	9	23,499,158	23,128,518
Contract liabilities	5	4,456,756	1,788,894
Current tax liabilities		19,753,147	24,365,696
<b>Total current liabilities</b>		<b>202,370,213</b>	<b>191,252,653</b>
<b>TOTAL LIABILITIES</b>		<b>1,411,922,828</b>	<b>1,140,177,961</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>2,684,135,875</b>	<b>2,306,806,174</b>

The Condensed Interim Statement of Financial Position should be read in conjunction with the audited financial statements for the financial year ended 31 December 2021 and the accompanying explanatory notes attached to this condensed interim financial information.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**CONDENSED INTERIM STATEMENT OF PROFIT OR LOSS  
AND OTHER COMPREHENSIVE INCOME  
FOR THE QUARTER AND TWLEVE-MONTH PERIOD ENDED 31 DECEMBER 2022**

	Note	Unaudited Three-month period ended		Unaudited Twelve-month period ended	
		31.12.2022 KHR'000	31.12.2021 KHR'000	31.12.2022 KHR'000	31.12.2021 KHR'000
<b>Income:</b>					
Sales	11	79,607,062	76,670,760	299,723,507	282,369,797
Construction service fee		11,476,698	6,709,409	24,976,316	26,241,989
Foreign exchange gains - net		-	1,652,286	-	2,273,984
Other income		1,182,705	7,643,907	21,478,333	58,259,487
		<u>92,266,465</u>	<u>92,676,362</u>	<u>346,178,156</u>	<u>369,145,257</u>
<b>Expenses:</b>					
Depreciation and amortisation charges		(14,846,062)	(14,738,962)	(59,455,074)	(55,194,412)
Electricity costs		(8,579,316)	(8,495,815)	(35,218,743)	(35,791,983)
Salaries, wages and related expenses		(19,016,132)	(17,414,704)	(70,175,422)	(63,631,237)
Raw materials for water treatment		(3,463,717)	(2,707,674)	(12,140,740)	(9,541,982)
Raw materials for household water connections		(1,036,638)	(966,606)	(4,953,371)	(3,163,768)
Repairs and maintenance		(3,487,621)	(1,918,207)	(8,009,358)	(7,050,855)
Construction service expense		(8,027,104)	(9,153,504)	(16,618,024)	(22,448,213)
Other operating expenses		(3,640,443)	(8,267,449)	(11,243,416)	(15,226,506)
Foreign exchange losses - net		(2,164,149)	-	(3,481,166)	-
		<u>(64,261,182)</u>	<u>(63,662,921)</u>	<u>(221,295,314)</u>	<u>(212,048,956)</u>
<b>Operating profit</b>		<b>28,005,283</b>	<b>29,013,441</b>	<b>124,882,842</b>	<b>157,096,301</b>
Finance income	12	4,863,214	4,989,097	17,737,746	13,555,064
Finance costs	13	(8,327,789)	(937,182)	(12,104,696)	(4,794,779)
<b>Profit before tax</b>		<b>24,540,708</b>	<b>33,065,356</b>	<b>130,515,892</b>	<b>165,856,586</b>
Income tax	14	(2,450,103)	(11,112,495)	(22,330,027)	(36,582,669)
<b>Profit for the period, representing total comprehensive income for the period</b>		<b><u>22,090,605</u></b>	<b><u>21,952,861</u></b>	<b><u>108,185,865</u></b>	<b><u>129,273,917</u></b>
Earnings per share attributable to owners					
Basic earnings per share (KHR)		253.99	252.41	1,243.90	1,486.37
Diluted earnings per share (KHR)		253.99	252.41	1,243.90	1,486.37

The Condensed Interim Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the audited financial statements for the financial year ended 31 December 2021 and the accompanying explanatory notes attached to this condensed interim financial information.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**CONDENSED INTERIM STATEMENT OF CHANGES IN EQUITY  
FOR THE QUARTER AND TWLEVE-MONTH PERIOD ENDED 31 DECEMBER 2022**

	Note	Share capital and share premium KHR'000	Reserves KHR'000	Retained earnings KHR'000	Total KHR'000
<b>Unaudited</b>					
<b>Balance at 1 January 2022</b>		619,315,886	418,038,410	129,273,917	1,166,628,213
Profit for the financial period, representing total comprehensive income for the period		-	-	108,185,865	108,185,865
<b>Transactions with owners</b>					
Capital contribution	7	1,443,221	-	-	1,443,221
Transfer to reserves		-	125,229,665	(125,229,665)	-
Dividends	15	-	-	(4,044,252)	(4,044,252)
<b>Total transactions with owners</b>		<b>1,443,221</b>	<b>125,229,665</b>	<b>(129,273,917)</b>	<b>(2,601,031)</b>
<b>Balance at 31 December 2022</b>		<b>620,759,107</b>	<b>543,268,075</b>	<b>108,185,865</b>	<b>1,272,213,047</b>
<b>Unaudited</b>					
<b>Balance at 1 January 2021</b>		541,227,282	352,473,530	88,351,845	982,052,657
Profit for the financial period, representing total comprehensive income for the period		-	-	129,273,917	129,273,917
<b>Transactions with owners</b>					
Capital contribution		78,088,604	-	-	78,088,604
Transfer to reserves		-	65,564,880	(65,564,880)	-
Dividends	15	-	-	(22,786,965)	(22,786,965)
<b>Total transactions with owners</b>		<b>78,088,604</b>	<b>65,564,880</b>	<b>(88,351,845)</b>	<b>55,301,639</b>
<b>Balance at 31 December 2021</b>		<b>619,315,886</b>	<b>418,038,410</b>	<b>129,273,917</b>	<b>1,166,628,213</b>

The Condensed Interim Statement of Changes in Equity be read in conjunction with the audited financial statements for the financial year ended 31 December 2021 and the accompanying notes attached to the condensed interim financial information.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**CONDENSED INTERIM STATEMENT OF CASH FLOWS**  
**FOR THE QUARTER AND TWLEVE-MONTH PERIOD ENDED 31 DECEMBER 2022**

	<b>Unaudited</b>	
	<b>Twelve-month period ended</b>	
	<b>31.12.2022</b>	<b>31.12.2021</b>
	<b>KHR'000</b>	<b>KHR'000</b>
<b>Cash flows from operating activities</b>		
<b>Profit before tax</b>	<b>130,515,892</b>	<b>165,856,586</b>
Adjustments for:		
Amortisation of intangible assets	1,994,147	1,702,419
Depreciation of property, plant and equipment	57,460,927	53,491,993
Amortisation of deferred government and other grants	(2,009,908)	(2,009,907)
Waiver of dividends payable	-	(36,372,177)
Written off of property, plant and equipment	136,839	5,749,176
Finance income	(4,656,618)	(2,706,044)
Finance costs	9,115,530	6,436,677
Net unrealised foreign exchange loss/(gain)	1,553,740	(10,928,248)
	<hr/>	<hr/>
<b>Operating profit before changes in working capital</b>	<b>194,110,549</b>	<b>181,220,475</b>
Increase in inventories	(89,819,201)	(72,331,066)
(Increase)/Decrease in trade and other receivables	(1,668,049)	1,376,002
Increase in trade and other payables	8,509,694	5,184,655
Increase in contract assets	(26,743,794)	(23,102,033)
(Decrease)/Increase in contract liabilities	2,667,862	(1,827,672)
Increase in refundable water deposits	7,355,632	4,250,237
	<hr/>	<hr/>
<b>Net cash from operations</b>	<b>94,412,693</b>	<b>94,770,598</b>
Income tax paid	(22,233,157)	(25,473,919)
	<hr/>	<hr/>
<b>Net cash from operating activities</b>	<b>72,179,536</b>	<b>69,296,679</b>
	<hr/>	<hr/>
<b>Cash flows from investing activities</b>		
Purchase of property, plant and equipment	(281,619,716)	(289,716,945)
Purchase of intangible assets	(390,075)	(1,133,062)
Increase in short-term investments	(57,954,583)	(49,719,119)
Interest capitalised on qualifying assets	(5,505,096)	(4,398,469)
Interest received	2,934,894	2,109,045
Receipt of EU grants (Note 8)	54,436,199	-
	<hr/>	<hr/>
<b>Net cash used in investing activities</b>	<b>(288,098,377)</b>	<b>(342,858,550)</b>
	<hr/>	<hr/>

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**CONDENSED INTERIM STATEMENT OF CASH FLOWS**  
**FOR THE QUARTER AND TWLEVE-MONTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

	Unaudited	
	Twelve-month period ended	
	31.12.2022	31.12.2022
	KHR'000	KHR'000
<b>Cash flows from financing activities</b>		
Capital contribution from MoEF, net	1,443,221	(103,656)
Dividend paid	(4,044,252)	(3,418,042)
Drawdown of borrowings	218,280,439	303,185,292
Interest paid	(7,491,804)	(7,556,383)
Repayments of borrowings	(20,769,386)	(28,596,307)
<b>Net cash generated from financing activities</b>	<b>187,418,218</b>	<b>263,510,904</b>
<b>Net decrease in cash and cash equivalents</b>	<b>(28,500,623)</b>	<b>(10,050,967)</b>
<b>Cash and cash equivalents at the beginning of the period</b>	<b>89,659,538</b>	<b>99,710,505</b>
<b>Cash and cash equivalents at the end of the period</b>	<b>61,158,915</b>	<b>89,659,538</b>

The Condensed Interim Statement of Cash Flows should be read in conjunction with the audited financial statements for the financial year ended 31 December 2021 and the accompanying explanatory notes attached to the condensed interim financial information.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022**

**1. CORPORATE INFORMATION**

Phnom Penh Water Supply Authority ("PPWSA") is under the technical supervision of the Ministry of Industry Science Technology and Innovation ("MISTI") and the financial supervision of the Ministry of the Economy and Finance ("MoEF"), and has its headquarter in Phnom Penh. PPWSA is acknowledged as having the economic characteristic of a public enterprise by the Ministry of Commerce under the registration number Co.0839 Et/2012, dated 27 March 2012.

The registered office of the PPWSA is No. 45, Street 106, Sangkat Srah Chork, Khan Daun Penh, Phnom Penh, Kingdom of Cambodia.

The principal activities of PPWSA are to process and distribution of water for general used by the public in the city of Phnom Penh. The objectives of the PPWSA are to:

- Invest in, build, enlarge, operate, repair and maintain the means of water sanitation and distribution;
- Manage devices to increase water production, and improve services and water quality to meet demand;
- Operate the business, services and related duties for water supply in accordance with the Board of Director's resolutions and the laws of Cambodia;
- Cooperate with local and external development partners on technology, trade and finance in order to improve and develop the PPWSA in accordance with government policy; and
- Ensure sustainable production processes, business and finance for the public interest.

**2. BASIS FOR PREPARATION**

The condensed interim financial information of PPWSA is unaudited and have been prepared in accordance with the provision of the Cambodian International Accounting Standard 34 *Interim Financial Reporting*.

The condensed interim financial information does not include all notes of type normally included in an annual financial statements, however, selected explanatory notes are included to explain events and transactions that are significant to an understanding of the changes in PPWSA's financial position and performance since the last annual financial statements. Accordingly, this condensed interim financial information is to be read in conjunction with the annual audited financial statements for the financial year ended 31 December 2022 and any public announcements made by PPWSA during the interim reporting period.

The accounting policies adopted are consistent with those of the previous financial year and corresponding interim reporting period.

**3. SEASONAL OR CYCLICAL FACTOR**

Except for those disclosed in the notes to the condensed interim financial information, PPWSA's operations are not materially affected by seasonal or cyclical factors.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**4. PROPERTY, PLANT AND EQUIPMENT**

	<b>Unaudited</b> <b>31.12.2022</b> <b>KHR'000</b>	<b>Audited</b> <b>31.12.2021</b> <b>KHR'000</b>
<b>Cost</b>		
Balance at the beginning of the financial period/year	2,438,823,008	2,075,369,345
Additions	287,124,812	294,115,414
Acquisition through capital contribution	-	78,192,260
Transfer from inventory	80,775,250	7,212,446
Transfer to intangible assets	(1,125,000)	(16,431)
Written-off	(136,839)	(16,050,026)
Balance at the end of the financial period/year	<u>2,805,461,230</u>	<u>2,438,823,008</u>
<b>Accumulated depreciation</b>		
Balance at the beginning of financial period/year	544,958,389	501,767,246
Depreciation for the financial period/year	57,460,927	53,491,993
Written-off	-	(10,300,850)
Balance at the end of the financial period/year	<u>602,419,316</u>	<u>544,958,389</u>
<b>Carrying amount</b>		
Balance at the end of the financial period/year	<u>2,203,041,914</u>	<u>1,893,864,619</u>

During the quarter and twelve-month period ended 31 December 2022, PPWSA made the following cash payment for its additions of property, plant and equipment:

	<b>Unaudited</b> <b>31.12.2022</b> <b>KHR'000</b>	<b>Audited</b> <b>31.12.2021</b> <b>KHR'000</b>
Additions	287,124,812	294,115,414
Interest capitalised on qualifying assets	(5,505,096)	(4,398,469)
Cash payment for purchase of property, plant and equipment	<u>281,619,716</u>	<u>289,716,945</u>

**5. CONTRACT ASSETS / (LIABILITIES)**

	<b>Unaudited</b> <b>31.12.2022</b> <b>KHR'000</b>	<b>Audited</b> <b>31.12.2021</b> <b>KHR'000</b>
<b>Contract assets</b>		
Contract assets relating to construction service contracts	3,533,898	536,051
Contract assets relating to water revenue	89,234,477	65,488,529
	<u>92,768,374</u>	<u>66,024,580</u>
<b>Contract liabilities</b>		
Contract liabilities relating to construction service contracts	<u>4,456,756</u>	<u>1,788,894</u>

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**6. SHORT-TERM INVESTMENTS**

These represent fixed deposit placed with financial institutions for a period of between nine to twelve months (2021: nine to twelve months) and earn interest at rates ranging from 3.50% to 4.75% (2021: 3.50% to 4.75%) per annum.

**7. SHARE CAPITAL AND SHARE PREMIUM**

	Note	No. of shares	2022 KHR'000	2021 KHR'000
Ordinary shares		86,973,162	86,973,162	86,973,162
Class A shares		391,100,942	391,100,942	391,100,942
Share premium		-	63,153,178	63,153,178
Capital reserve	(a)	-	79,531,825	78,088,604
		<u>478,074,104</u>	<u>620,759,107</u>	<u>619,315,886</u>

(a) On 30 December 2022, the Ministry of the Economy and Finance ("MoEF") increased its capital in PPWSA by injecting inventory into PPWSA, totaling to KHR1,443,221,000, without the issuance of any additional shares of PPWSA.

The MoEF had on its letter reference number 13505 dated 30 December 2022 instructed PPWSA to reflect this capital contribution as share capital of PPWSA.

**8. DEFERRED GOVERNMENT AND OTHER GRANTS**

	Unaudited 31.12.2022 KHR'000	Audited 31.12.2021 KHR'000
Balance at 1 January	16,812,186	18,822,093
Additions*	54,436,199	-
Amortisation for the financial period/year	<u>(2,009,908)</u>	<u>(2,009,907)</u>
Balance at the end of the financial period/year	<u>69,238,477</u>	<u>16,812,186</u>

\* The additional grants represent grant for the purchase of materials for Bakheng Water Supply Project C at an amount of EUR12,700,000 in the form of an investment grant made available through the general budget of the European Union ("EU").

As at the end of the financial year, PPWSA has received the payment of disbursement of Grant totaling to EUR12,574,864 or equivalent of KHR54,436,199,000 upon the fulfillment of the contract condition. No amortisation in respect of such grant as at the end of the financial year as the construction of Bakheng Water Project C is still yet to be completed.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION**  
**FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**9. BORROWINGS**

	Currency	Nominal interest rate	Year of maturity	Carrying amount KHR'000
<b>Balance at 1 January 2022</b>				813,488,268
<b>New issues</b>				
EIB	USD	0.610% - 0.965%	2048	75,945,976
AfD - Credit No. 1174 01 P	USD	1.800%	2037	19,568
AfD - Credit No. 1176 01 S	USD	0.900%	2038	59,352,613
AfD - Credit No. 1244 01 M	USD	0.900%	2039	82,962,282
<b>Repayments</b>				
<b>Principle</b>				
MoEF - JICA	JPY	0.660%	2049	(1,486,205)
MoEF - ADB	SDR	1.650%	2037	(2,241,090)
AfD - Credit No. 1121 01 F	EUR	0.250%	2025	(17,042,091)
<b>Interest</b>				
EIB	USD	0.610% - 0.965%	2048	(2,123,607)
MoEF - JICA	JPY	0.660%	2049	(267,303)
MoEF - ADB	SDR	1.650%	2037	(564,147)
AfD - Credit No. 1121 01 F	EUR	0.250%	2025	(140,647)
AfD - Credit No. 1174 01 P	USD	1.800%	2037	(1,322,925)
AfD - Credit No. 1176 01 S	USD	0.900%	2038	(2,591,411)
AfD - Credit No. 1244 01 M	USD	0.900%	2039	(481,764)
<b>Accrued interest</b>				9,115,530
<b>Realised exchange loss</b>				1,958,693
<b>Unrealised exchange gain</b>				(4,586,866)
<b>Balance at 31 December 2022</b>				1,009,994,875

**Breach of loan covenants**

PPWSA has unsecured borrowings with a carrying amount of KHR1,009,994,875,000 as at 31 December 2022. These borrowings bear interest from 0.250% to 1.800% and are repayable ranges from 2 to 26 years. However, these borrowings contained certain covenants which PPWSA has to comply, otherwise MoEF and / or AfD may suspend or cancel the rights of PPWSA to request additional disbursement of the unwithdrawn amount and repayable on demand of its existing outstanding balance, if such covenant breached is material.

PPWSA exceeded its maximum leverage threshold during the quarter and twelve-month period ended 31 December 2022. However, PPWSA obtained a waiver from the relevant party, extended until 31 December 2022. Accordingly, the borrowings were not repayable on demand at 31 December 2022.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**10. TRADE AND OTHER PAYABLES**

	<b>Unaudited</b>	<b>Audited</b>
	<b>31.12.2022</b>	<b>31.12.2021</b>
	<b>KHR'000</b>	<b>KHR'000</b>
<b>Non-current:</b>		
Refundable water deposits	76,801,705	69,446,073
<b>Current:</b>		
<b>Trade payables</b>		
Third parties	48,078,710	33,251,064
Accrued construction-in-progress	23,208,075	38,283,099
	<u>71,286,785</u>	<u>71,534,163</u>
<b>Other payables</b>		
Accrued staff incentive	9,993,226	9,241,237
Amount due to Phnom Penh Municipality	57,830,594	47,455,958
Performance guarantee	67,390	67,344
Other tax payable	385,903	293,258
Accruals	6,071,437	6,146,076
Other payables	9,025,817	7,231,509
	<u>83,374,367</u>	<u>70,435,382</u>
Total trade and other payables (current)	<u>154,661,152</u>	<u>141,969,545</u>
Total trade and other payables (non-current and current)	<u>231,462,857</u>	<u>211,415,618</u>

**11. SALES**

	<b>Unaudited</b>		<b>Unaudited</b>	
	<b>Three-month period ended</b>		<b>Twelve-month period ended</b>	
	<b>31.12.2022</b>	<b>31.12.2021</b>	<b>31.12.2022</b>	<b>31.12.2021</b>
	<b>KHR'000</b>	<b>KHR'000</b>	<b>KHR'000</b>	<b>KHR'000</b>
Water sales:				
- households	28,492,401	28,626,918	110,873,519	112,290,774
- commercial	44,963,289	35,247,522	151,870,153	128,582,099
- public administration	4,998,643	7,224,176	19,671,036	21,500,185
- wholesalers	2,901,520	2,627,259	10,317,389	9,333,345
Rounding difference on water sales revenue	18,773	18,042	70,442	66,249
Less: Invoice cancellations	(5,010,208)	(508,656)	(6,513,321)	(3,188,402)
	<u>76,364,418</u>	<u>73,235,261</u>	<u>286,289,218</u>	<u>268,584,250</u>
Water connection revenue	2,153,208	2,582,048	8,819,483	9,735,973
Water meter replacement charges	879,021	759,608	4,222,754	3,871,144
Spare parts and meter sales	210,415	93,843	392,052	178,430
	<u>79,607,062</u>	<u>76,670,760</u>	<u>299,723,507</u>	<u>282,369,797</u>

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**12. FINANCE INCOME**

	Unaudited		Unaudited	
	Three-month period ended		Twelve-month period ended	
	31.12.2022	31.12.2021	31.12.2022	31.12.2021
	KHR'000	KHR'000	KHR'000	KHR'000
Interest income on bank deposits	1,571,839	907,534	4,656,618	2,706,044
Unrealised foreign exchange gain on borrowings	3,291,375	4,081,563	13,081,128	10,849,020
	<u>4,863,214</u>	<u>4,989,097</u>	<u>17,737,746</u>	<u>13,555,064</u>

**13. FINANCE COSTS**

	Unaudited		Unaudited	
	Three-month period ended		Twelve-month period ended	
	31.12.2022	31.12.2021	31.12.2022	31.12.2021
	KHR'000	KHR'000	KHR'000	KHR'000
Interest expense on borrowings	2,273,033	1,621,584	9,115,530	6,436,677
Unrealised foreign exchange loss/(gain) on borrowings	7,416,904	-	8,494,262	2,756,571
Interest capitalised on qualifying assets	(1,362,148)	(684,402)	(5,505,096)	(4,398,469)
	<u>8,327,789</u>	<u>937,182</u>	<u>12,104,696</u>	<u>4,794,779</u>

**14. INCOME TAX**

Income tax expense is recognised at an amount determined by multiplying the profit before tax for the interim reporting period by management's best estimate of the weighted-average annual income tax rate expected for the full financial year, adjusted for the tax effect of certain items recognised in full in the interim period. As such, the effective tax rate for the annual financial statements may differ from management's estimate of the effective tax rate for the annual financial statements.

PPWSA's effective tax rate for the quarter and twelve-month period ended 31 December 2022 of 17% (quarter and twelve-month period ended 31 December 2021: 22%). The change in effective tax rate was mainly contributed by the adjustment on over accrued of income tax expense for prior periods.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**15. DIVIDENDS**

	Unaudited	
	twelve-month period ended 31.12.2022	31.12.2021
	KHR'000	KHR'000
<b>Recognised during the financial period</b>		
Dividend for the financial period ended 31 December 2022 of KHR310 per ordinary share *	4,044,252	-
Dividend for the financial period ended 31 December 2021 of KHR262 per ordinary share	-	22,786,965

\* The Board of Directors had on 18 March 2022 declared and approved the dividend of KHR310 per ordinary share of PPWSA.

Pursuant to the approval letter from the MoEF on 9 August 2021, PPWSA is exempted for payment of dividends by PPWSA to MoEF until the financial year ending 2024, with dividends of financial year ending 2025 to be resumed as PPWSA's usual practice.

Accordingly, the dividends recognised during the financial period were for the remaining shareholders of PPWSA, whilst the portion for MoEF were transferred from retained earnings to development reserve of PPWSA directly.

**16. RELATED PARTY TRANSACTIONS**

PPWSA has the following significant transactions with related parties:

(b) Government-related entities

Government-linked corporations are related to PPWSA by virtue of the substantial shareholdings of Ministry of Economy and Finance ("MoEF"). Entities directly controlled by the Government are collectively referred to as government-related entities to PPWSA.

The Government and bodies controlled or jointly controlled by the Government of Cambodia are related parties to PPWSA. PPWSA enters into transactions with many of these bodies, which include but are not limited to purchasing of goods, including use of public utilities and amenities, and the placing of bank deposits.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
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**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**16. RELATED PARTY TRANSACTIONS (CONTINUED)**

PPWSA has the following significant transactions with related parties: (continued)

(a) Government-related entities (continued)

All the transactions entered into by PPWSA with the government-related entities are conducted in the ordinary course of PPWSA's businesses on negotiated terms or terms comparable to those with other entities that are not government-related, except otherwise disclosed elsewhere in the condensed interim financial information.

PPWSA is principally involved in the process and distribution of water as part of its ordinary operations. These services are carried out generally on commercial terms that are consistently applied to all customers. These transactions have been established on terms and conditions that are not materially different from those obtainable in transactions with unrelated parties.

Apart from the individually significant transactions and balances as disclosed elsewhere in the condensed interim financial information, PPWSA have collectively, but not individually significant transactions with related parties.

(b) Key management personnel compensation

Total key management personnel compensation is analysed as below:

	Unaudited twelve-months period ended	
	31.12.2022	31.12.2021
	KHR'000	KHR'000
Salaries and other expenses	2,380,572	2,435,463

**PHNOM PENH WATER SUPPLY AUTHORITY**  
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**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**17. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES**

The financial risk management objective of PPWSA is to optimise value creation for its shareholders whilst minimising the potential adverse impact arising from volatility of the financial markets.

The Board of Directors are responsible for setting the objectives and underlying principles of financial risk management of PPWSA. The management then establishes the detailed policies such as authority levels, oversight responsibilities, risk identification and measurement and exposure limits in accordance with the objectives and underlying principles approved by the Board of Directors.

(a) Credit risk

Credit risk is the risk of financial loss to PPWSA if a counter party to financial instrument fails to perform as contracted. PPWSA is mainly exposed to credit risk from credit sales. It is PPWSA's policy to monitor for financial standing of these counter parties on an ongoing basis to ensure that PPWSA is exposed to minimal credit risk.

PPWSA's primary exposure to credit risk arises through its trade receivables from its customers. The credit period is one month and PPWSA seeks to maintain strict control over its outstanding receivables to minimise the credit risk. Overdue balances are reviewed regularly by management.

(b) Liquidity and cash flow risk

Liquidity and cash flow risk arises from PPWSA's management of working capital. It is the risk that PPWSA will encounter difficulty in meeting its financial obligations when due.

PPWSA actively manages its debt maturity profile, operating cash flows and the availability of funding so as to ensure that all operating, investing and financing needs are met. In liquidity risk management strategy, PPWSA maintains a level of cash and cash equivalents deemed adequate to finance PPWSA's activities.

(c) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of the financial instruments of PPWSA would fluctuate because of changes in market interest rates.

The exposure of PPWSA to interest rate risks arises primarily from borrowings. PPWSA manages its interest rate exposure by closely monitoring the debt market and where necessary, maintaining a prudent mix of fixed and floating rate borrowings. PPWSA does not use derivative financial instruments to hedge any debt obligations.

**PHNOM PENH WATER SUPPLY AUTHORITY**  
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**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**17. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)**

(d) Fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities. It does not include fair value information for financial assets and financial liabilities not measured at fair value if the carrying amount is a reasonable approximation of fair value.

Trade and other receivables, contract assets, loan to employees, short-term investments, cash and cash equivalents, trade and other payables, contract liabilities are not included in the table below. Their carrying amount is a reasonable approximation of fair value.

	Carrying amount KHR'000	Fair value of financial instruments not carried at fair value KHR'000
<b>Borrowings</b>		
31.12.2022	1,009,994,875	868,569,688
31.12.2021	813,488,268	821,446,238

**Level 3 fair value**

Fair value of financial instruments not carried at fair value

The fair value of borrowings is determined using the discounted cash flows method based on discount rates that reflects the issuer's borrowing rate as at the end of the reporting date.

**18. CAPITAL COMMITMENTS**

At the end of the current financial quarter, PPWSA has commitment on capital expenditure in respect of:

	Unaudited twelve-month period ended	
	31.12.2022 KHR'000	31.12.2021 KHR'000
Construction of water treatment plant	101,740,068	393,733,852
Consultation services	9,891,722	7,771,956
Purchase of iron pipes, fitting and accessories	23,120,399	3,405,060
	<u>134,752,189</u>	<u>404,910,868</u>

**PHNOM PENH WATER SUPPLY AUTHORITY**  
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**NOTES TO THE CONDENSED INTERIM FINANCIAL INFORMATION  
FOR THE QUARTER AND TWELVE-MONTHTH PERIOD ENDED 31 DECEMBER 2022 (CONTINUED)**

**19. SEGMENTAL REPORTING**

Segmental reporting is not presented as PPWSA is principally engaged in the processing and distribution of water for general used by the public in the city of Phnom Penh and the provision of other related services, which are substantially within a single business segment and this is consistent with the current practice of its internal reporting. PPWSA operates in Cambodia.

**20. COMPARATIVE FIGURES**

Certain comparative figures have been reclassified to conform to current period's presentation.

**21. AUTHORISATION OF CONDENSED INTERIM FINANCIAL INFORMATION**

The condensed interim financial information of PPWSA for the quarter and twelve-month period ended 31 December 2022 were authorised for issue by the Board of Directors on 13 February 2023.

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**REPORT ON THE REVIEW OF CONDENSED INTERIM FINANCIAL INFORMATION  
TO THE MEMBERS OF PHNOM PENH WATER SUPPLY AUTHORITY**  
(Incorporated in Cambodia)

**Introduction**

We have reviewed the accompanying condensed interim statement of financial position of Phnom Penh Water Supply Authority ("PPWSA") as at 31 December 2022 and the related condensed interim statement of profit or loss and other comprehensive income, condensed interim statement of changes in equity and condensed interim statement of cash flows for the quarter and twelve-month period then ended, and notes to the condensed interim financial information (collectively referred to as "condensed interim financial information of PPWSA"). The directors of PPWSA are responsible for the preparation and fair presentation of the condensed interim financial information of PPWSA in accordance with the Cambodian International Accounting Standard ("CIAS") 34 *Interim Financial Reporting*. Our responsibility is to express a conclusion on the condensed interim financial information of PPWSA based on our review.

**Scope of review**

We conducted our review in accordance with International Standard on Review Engagements 2410 *Review of Interim Financial Information Performed by the Independent Auditor of the Entity* ("ISRE 2410"). A review of condensed interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical procedures and other review procedures. A review is substantially less in scope than an audit conducted in accordance with the Cambodian International Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an opinion.

**Conclusion**

Based on our review, nothing has come to our attention that causes us to believe that the accompanying condensed interim financial information of PPWSA are not presented fairly, in all material respects, in accordance with Cambodian International Accounting Standard 34 *Interim Financial Reporting*.



**Baker Tilly (Cambodia) Co., Ltd.**  
Certified Public Accountants

Phnom Penh, Kingdom of Cambodia

Date: 13 FEB 2023



**Oknha Tan Khee Meng**  
Certified Public Accountant

## **APPENDIX II**

### **Result of Water Analysis of Chamkar Morn WTP**

**TEST REPORT 7191297902-01-CHM22-PN**

# TEST REPORT: 7191297902-01-CHM22-PN

Date: 28 DEC 2022

Tel: +65 6973 6164

Client's Ref:

Email: na.pi@tuvsud.com

**Note:** This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



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## **SUBJECT**

Analysis of Drinking Water Sample

## **CLIENT**

Phnom Penh Water Supply Authority (PPWSA)  
#45, Street 106, Phnom Penh12202  
Cambodia

Attention: Mr. Keo Heng

## **DATE OF SAMPLE SUBMISSION / TESTING**

24 Nov 2022 / 25 Nov to 27 Dec 2022

## **DESCRIPTION OF SAMPLE**

One water sample was received and labelled as "Drinking Water"

## **METHOD OF TEST**

APHA-AWWA-WEF 22<sup>nd</sup> Edition 2012 - Standard Methods for the Examination of Water and Wastewater  
USEPA Method 200.8 Determination of Trace Elements in Waters and Wastes by ICP-MS  
USEPA Method 300.1 Determination of Inorganic Anions in Drinking Water by Ion Chromatography  
USEPA Method 508 Determination of Chlorinated Pesticides in Water by GC/ECD  
USEPA Method 515 Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Extraction, Derivatization, and GC/ECD  
USEPA Method 524.3 Measurement of Purgeable Organic Compounds in Water By Capillary Column GC/MS  
USEPA Method 525.2 Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column GC/MS  
USEPA Method 551.1 Determination of Chlorination Disinfection Byproducts, Chlorinated Solvents, and Halogenated Pesticides/Herbicides in Drinking Water by Liquid-Liquid Extraction and GC/ECD  
USEPA Method 552.2 Determination of Haloacetic Acids and Dalapon in Drinking Water by Liquid-Liquid Extraction, Derivatization and GC/ECD  
Determination of EDTA and NTA by Solid Phase Extraction, Derivatization and GC/MS  
Determination of Bromate by Derivatization and GC/MS (SIM mode)



TÜV SÜD PSB

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**TEST REPORT: 7191236287-01-CHM20-PN**  
28 DEC 2022



PSB Singapore

**RESULTS**

Test parameter	Drinking water	Detection Limit	*WHO Guideline Value	
<b>Microbiological Parameter</b>				
Escherichia coli	cfu/100mL	Not detected	1	< 1
<b>Physical Parameters</b>				
Color	Hazen	Not detected	2.5	15
Conductivity at 25°C	µS/cm	122	-	-
Odour		Unobjectionable	-	-
pH @ 25°C	units	7.2	-	-
Total Dissolved Solids	mg/L	73	1	-
Turbidity	NTU	0.26	0.1	5
<b>Chemical Parameters</b>				
Acrylamide	mg/L	Not detected	0.0004	0.5
Alachlor	mg/L	Not detected	0.001	0.02
Aldicarb	mg/L	Not detected	0.005	0.01
Aldrin & Dieldrin	mg/L	Not detected	0.00001	0.00003
Antimony	mg/L	Not detected	0.001	0.02
Arsenic	mg/L	Not detected	0.001	0.01
Atrazine and its chloro-s-triazine metabolites	mg/L	Not detected	0.001	0.1
Atrazine	mg/L	Not detected	0.001	-
Aluminium	mg/L	0.007	0.001	-
Barium	mg/L	0.05	0.001	1.3
Benzene	mg/L	Not detected	0.001	0.01
Benzo (a) pyrene	mg/L	Not detected	0.0001	0.0007
Boron	mg/L	Not detected	0.01	2.4
Bromate	mg/L	Not detected	0.005	0.01
Bromodichloromethane	mg/L	Not detected	0.001	0.06
Bromoform	mg/L	Not detected	0.001	0.1
Cadmium	mg/L	Not detected	0.001	0.03
Carbofuran	mg/L	Not detected	0.001	0.007
Carbon Tetrachloride	mg/L	Not detected	0.001	0.004
Chlorate	mg/L	Not detected	0.3	0.7
Chlordane (total isomers)	mg/L	Not detected	0.0001	0.0002
Chlorine (Free)	mg/L	Not detected	0.1	5
Chlorite	mg/L	Not detected	0.1	0.7
Chlorate	mg/L	0.3	0.1	0.7
Chloroform	mg/L	Not detected	0.001	0.3
Chlorotoluron	mg/L	Not detected	0.005	0.03
Chlorpyrifos	mg/L	Not detected	0.001	0.03
Chromium (in all forms as a total)	mg/L	Not detected	0.01	0.05
Copper	mg/L	Not detected	0.01	2
Cyanazine	mg/L	Not detected	0.0001	0.0006
Cyanide	mg/L	Not detected	0.1	-

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**RESULTS** (Continued)

Test parameter	Drinking water	Detection Limit	*WHO Guideline Value	
Cyanogen chloride (as cyanide)	mg/L	Not detected	0.1	-
Chloride	mg/L	14.3	0.1	-
2,4-D (2,4-dichlorophenoxyacetic acid) in free acid form	mg/L	Not detected	0.004	0.03
2,4-DB [2,4-Dichlorophenoxy) butyric acid]	mg/L	Not detected	0.004	0.09
DDT & Metabolites	mg/L	Not detected	0.0001	0.001
Di(2-Ethylhexyl) phthalate	mg/L	Not detected	0.001	0.008
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	Not detected	0.001	0.001
Dibromoacetonitrile	mg/L	Not detected	0.003	0.07
Dibromochloromethane	mg/L	Not detected	0.001	0.1
1,2-Dibromoethane (Ethylene Dibromide)	mg/L	Not detected	0.0001	0.0004
Dichloroacetate	mg/L	Not detected	0.01	0.05
Dichloroacetonitrile	mg/L	Not detected	0.003	0.02
Dichlorobenzene, 1,2-	mg/L	Not detected	0.001	1
Dichlorobenzene, 1,4-	mg/L	Not detected	0.001	0.3
Dichloroethane, 1,2-	mg/L	Not detected	0.001	0.03
Dichloroethene (cis & trans), 1,2-	mg/L	Not detected	0.001	0.05
Dichloromethane	mg/L	Not detected	0.001	0.02
Dichloropropane, 1,2-	mg/L	Not detected	0.001	0.04
Dichloropropene, 1,3-	mg/L	Not detected	0.001	0.02
Dichlorprop	mg/L	Not detected	0.004	0.1
Dicofol	mg/L	Not detected	0.001	-
Dimethoate	mg/L	Not detected	0.001	0.006
Dioxane, 1,4-	mg/L	Not detected	0.01	0.05
Endrin	mg/L	Not detected	0.0001	0.0006
Epichlorohydrin	mg/L	Not detected	0.0001	0.0004
Ethylbenzene	mg/L	Not detected	0.001	0.3
Edetic acid (EDTA-Ethylene Diamine Tetraacetic Acid) in free acid form	mg/L	Not detected	0.01	0.6
Fenoprop (2,4,5-TP; 2,4,5-trichlorophenoxy propionic acid)	mg/L	Not detected	0.004	0.009
Fluoride	mg/L	Not detected	0.1	1.5
Hexachlorobutadiene (HCBD)	mg/L	Not detected	0.0001	0.0006
Hydroxyatrazine	mg/L	Not detected	0.1	0.2
Isoproturon	mg/L	Not detected	0.005	0.009
Iron	mg/L	Not detected	0.02	-
Lead	mg/L	Not detected	0.001	0.01
Lindane	mg/L	Not detected	0.0001	0.002
MCPA (4-Chloro-2-methylphenoxyacetic acid)	mg/L	0.006	0.006	-
Mecoprop (MCP; [2(2-methyl-chlorophenoxy) propionic acid])	mg/L	0.005	0.004	0.01
Mercury, in inorganic form	mg/L	Not detected	0.001	0.006
Methoxychlor	mg/L	Not detected	0.001	0.02
Metolachlor	mg/L	Not detected	0.001	0.01
Microcystin-LR, in free and cellbound forms as a total	mg/L	Not detected	0.0005	0.001
Molinate	mg/L	Not detected	0.001	0.006
Monochloramine	mg/L	Not detected	0.1	3
Monochloroacetic acid (chloroacetic acid)	mg/L	Not detected	0.001	0.02
Manganese	mg/L	0.02	0.01	-
Molybdenum	mg/L	Not detected	0.02	-

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PSB Singapore

**RESULTS** (Continued)

Test parameter	Drinking water	Detection Limit	*WHO Guideline Value	
Nitrate (as N)	mg/L	0.3	0.02	11
Nickel	mg/L	Not detected	0.01	0.07
Nitritotriacetic acid (NTA)	mg/L	Not detected	0.1	0.2
Nitrite (as N)	mg/L	Not detected	0.1	0.9
Nitrate plus nitrite combined	units	0.3	0.12	1
Nitrisodimethylamine (NDMA)	mg/L	Not detected	0.00001	0.0001
Pendimethalin	mg/L	Not detected	0.001	0.02
Pentachlorophenol (PCP)	mg/L	Not detected	0.001	0.009
Perchlorate	mg/L	Not detected	0.005	0.07
Permethrin	mg/L	Not detected	0.04	-
Pyriproxyfen	mg/L	Not detected	0.04	-
Selenium	mg/L	Not detected	0.001	0.04
Simazine	mg/L	Not detected	0.001	0.002
Sodium	mg/L	9.67	0.01	-
Styrene	mg/L	Not detected	0.001	0.02
Sulfate as SO <sub>4</sub> <sup>2-</sup>	mg/L	3.0	0.1	-
Silica (as SiO <sub>2</sub> )	mg/L	10.6	0.02	-
Terbutylazine (TBA)	mg/L	Not detected	0.001	0.007
Tetrachloroethene	mg/L	Not detected	0.001	0.04
Toluene	mg/L	Not detected	0.001	0.7
Trichloroethene	mg/L	Not detected	0.001	0.02
Trichlorophenol, 2,4,6-	mg/L	Not detected	0.001	0.2
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	mg/L	Not detected	0.004	0.009
Trichloroacetate	mg/L	Not detected	0.01	0.2
Trifluralin	mg/L	Not detected	0.001	0.02
Total Trihalomethanes Ratio <sup>#</sup>	unit	Not detected	0.04	< 1
Total Organic Carbon (TOC)	mg/L	2.0	1	-
Total Alkalinity (as CaCO <sub>3</sub> )	mg/L	30.2	1	-
Total Hardness as (CaCO <sub>3</sub> )	mg/L	31.1	0.007	-
Total Phosphorus (as P)	mg/L	Not detected	0.1	-
Uranium	mg/L	Not detected	0.001	0.03
Vinyl Chloride	mg/L	Not detected	0.0001	0.0003
Xylenes	mg/L	Not detected	0.001	0.5

Note:

- \* Specification is based on WHO Guideline for Drinking Water Quality, 4<sup>th</sup> Edition 2011.
- # The sum of the ratio of the concentration of each to its respective guideline value should not exceed 1.



**REMARKS**

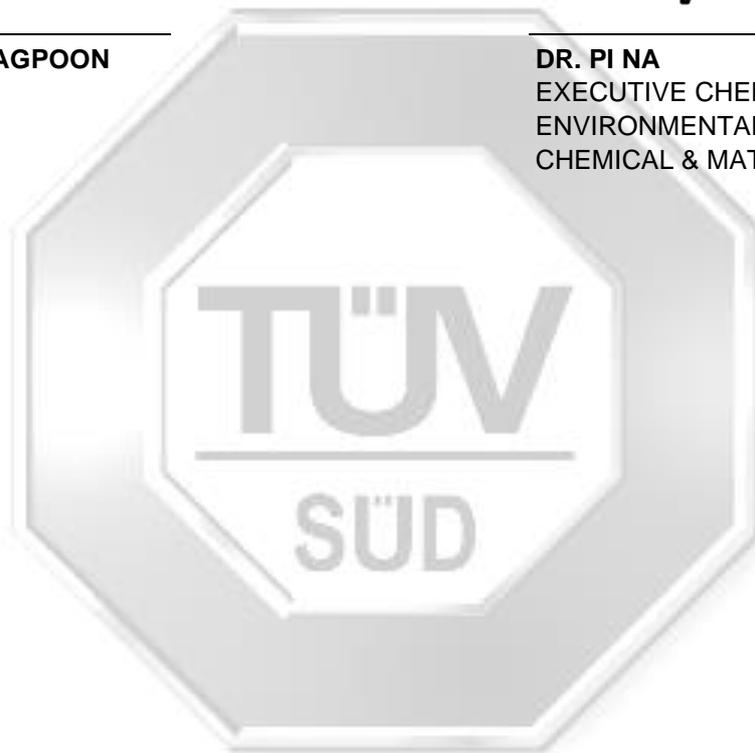
The parameters tested for the water sample complied with the WHO Guidelines for Drinking-Water Quality, 4<sup>th</sup> Edition 2011.

A handwritten signature in black ink, appearing to read 'jpland...'. It is written above a horizontal line.

**KATHERINE J. AGPOON**  
CHEMIST

A handwritten signature in black ink, appearing to read 'Pi Na'. It is written above a horizontal line.

**DR. PI NA**  
EXECUTIVE CHEMIST  
ENVIRONMENTAL MONITORING  
CHEMICAL & MATERIALS

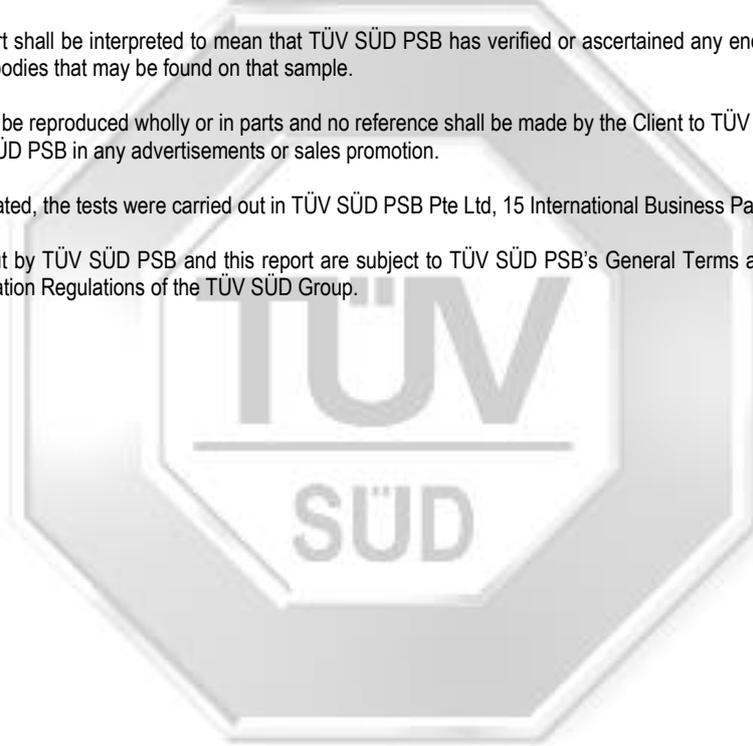




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Effective 01 January 2021





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