



## Analysis / Test Report

TESTING  
No.0166

**Client** : Bangkok Phuket Hospital Co., Ltd.  
2/1, Hongyok Utis Road, Taladyai, Muang, Phuket Thailand 83000

**P/O** : 005 - 4304217106

**Project Name** : Water Testing : BPK

**Project Location** :

**Lot ID: 21127267**

Date Received : Nov 03, 2021

Date Reported : Nov 19, 2021

Report Number : 2131969-1

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<b>Sample Number</b>	21127267-1
<b>Sampled Date</b>	Nov 02, 2021 11:30 AM
<b>Sample Description</b>	น้ำดื่มชดเชยในระบบ Cooling Tower
<b>Location</b>	Cooling Tower
<b>Date Analysis Commenced</b>	Nov 03, 2021
<b>Condition of Sample</b>	Contained in five plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
<b>Metals Testing</b>							
Iron	mg/L	0.001	0.005	0.01	≤1.0	Based on APHA (2017), 3125	Songkhla
<b>Microbiological Testing</b>							
<i>Legionella spp.</i> *	CFU/L	-	-	Not Detected**	Not Detected (1)	ISO 11731 (2017)	Bangkok
<b>Water Testing</b>							
Calcium Hardness as CaCO <sub>3</sub> *	mg/L	-	1	39	No Standard	Based on APHA (2017), 3500-Ca (B)	Songkhla
<sup>[A]</sup> Chloride as Cl	mg/L	0.06	0.2	26.0	≤300	APHA (2017), 4110 B	Bangkok
Conductivity *	micromhos/cm	-	0.5	225	≤3000	Based on APHA (2017), 2510 B	Songkhla
pH at 25 degree C		-	-	7.6	7-9	Based on APHA (2017), 4500-H (B)	Songkhla
<sup>[A]</sup> Phosphate as P *	mg/L	0.15	0.5	Not Detected	≤20	APHA (2017), 4110 B	Bangkok
Silica as SiO <sub>2</sub> *	mg/L	0.02	0.05	22.5	≤120	Based on APHA (2017), 4500-SiO <sub>2</sub> (D)	Bangkok
Total Alkalinity as CaCO <sub>3</sub> *	mg/L	-	1	17	≤1000	Based on APHA (2017), 2320 B	Songkhla
Total Dissolved solids Dried at 180 degree C	mg/L	-	5	172	≤2000	APHA (2017), 2540 C	Songkhla
Total Hardness as CaCO <sub>3</sub>	mg/L	-	1	50	≤300	APHA (2017), 2340 C	Songkhla

**Guideline** : หนังสือการปรุงแต่งคุณภาพน้ำ มาตรฐานน้ำใน Cooling Tower ดร.มันสิน ตัณฑุวรรณ  
(1) ประกาศกรมอนามัย พ.ศ. 2544 เรื่องข้อปฏิบัติการควบคุมเชื้อลิจิโอนัลลา ในหอผึ่งเย็นของอาคารในประเทศไทย

**Note** : \*\* Not Detected mean Bacteria not found in agar plate.

**Sampled By** : Nutdanai Juealaong , Thaksin Aintrom

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked \* is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DMSc Accreditation No. 1031/47.

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Approved by

*Sutthirak T.*

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