

# ผลวิเคราะห์คุณภาพน้ำสระว่ายน้ำ โครงการ โรงแรม แคนทารี บ้านฉาง



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## ANALYSIS REPORT

**CUSTOMER NAME** : KASEMKIJ COMPANY LIMITED (KANTARY BANCHANG HOTEL)  
**ADDRESS** : 91, 91/1 MOO 3 PHLA BANCHANG RAYONG 21130  
**CONTACT INFORMATION** : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : WATER SAMPLE FROM SWIMMING POOL  
**SAMPLING DATE** : MAY 4, 2022  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : CUSTOMER  
**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : MAY 6, 2022  
**ANALYTICAL DATE** : MAY 6-20, 2022  
**REPORT NO.** : 2022-U041988  
**WORK NO.** : 2022-003090  
**ANALYSIS NO.** : T22A1451-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T22A1451-0001		
pH <sup>a</sup> °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.6 (25°C)	7.2-7.6*	-
TOTAL CHLORINE °	mg/L Cl <sub>2</sub>	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	0.2	-	0.1
AMMONIA °	mg/L NH <sub>3</sub>	PHENATE METHOD (SM: 4500-NH <sub>3</sub> F)	1.13	-	0.05
TOTAL HARDNESS °	mg/L as CaCO <sub>3</sub>	EDTA TITRIMETRIC METHOD (SM: 2340 C)	321	-	4.0
NITRATE °	mg/L NO <sub>3</sub>	CADMIUM REDUCTION METHOD (SM: 4500 -NO <sub>3</sub> E)	1.15	-	0.09
CHLORIDE °	mg/L Cl <sup>-</sup>	ARGENTOMETRIC METHOD (SM: 4500-Cl B)	281	-	2.0
TOTAL ALKALINITY ^ °	mg/L as CaCO <sub>3</sub>	TITRATION METHOD (SM : 2320 B)	57.8	-	-
FREE CHLORINE ^ °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	1.1	1.0-3.0*	0.1
CYANURIC ACID °	mg/L	TURBIDIMETRIC METHOD	35	30-150*	1
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	< 1.1	< 10	1.1
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	< 1.1	NONE**	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: 9221 D AND F)	ABSENCE	ABSENCE	-

ISO 9001:2015 CERTIFIED  
 ISO 14001:2015 CERTIFIED  
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• REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T22AI451-0001		
<i>Pseudomonas aeruginosa</i> <sup>c</sup>	/100 mL	MEMBRANE FILTER TECHNIQUE (ISO 16266)	NOT DETECTED	1/	-
<i>Staphylococcus aureus</i> <sup>c</sup>	/100 mL	MEMBRANE FILTER TECHNIQUE (SM: 9213 B)	NOT DETECTED	1/	-
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : BANGKOK METROPOLITAN REGULATIONS FOR THE BUSINESS DISTRICTIONAL TO HEALTH, B.E. 2530 (1987).

\* : NATIONAL SPA AND POOL INSTITUTE (NSPI).

\*\* : RECOMMENDATIONS OF PUBLIC HEALTH COMMITTEE NO. 1/2550; CONTROL OF SWIMMING POOLS BUSINESSES OR OTHER SIMILAR BUSINESSES.

1/ : DISEASE-CAUSING BACTERIA IS NOT DETECTED.

ND : NON-DETECTABLE.

<sup>a</sup> : RECEIVED ON MAY 27, 2022, ANALYSIS NO. T22AK156-0001 (ANALYTICAL DATE : MAY 27-31, 2022).

THE REASON FOR ISSUING THE NEW REPORT IS SUBSTITUTE RESULT.

SUBSTITUTED REPORT FOR REPORT NO. 2022-U037459, DATED MAY 24, 2022.

*Benjawan V.*

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

JUNE 8, 2022



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Ref. No. W415/07/22

Report No. 2207/301

B-Quo-1474/2022

### Swimming Pool Water Quality Analysis Report

Project : Kantary Banchang  
Client Name : Kasemkij Co., Ltd.  
Sampling by : Kasemkij Co., Ltd.

Sampling Date : 14 July 2022  
Date Received : 14 July 2022  
Date of Analysis : 14-21 July 2022  
Date Reported : 1 August 2022

Parameter	Analytical Method	Swimming Pool	Standard
Total Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 B.)	<1.1	Less than 10
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	None	None

**Remark:**

Sample Characteristics: Clear

Detection Limit: Fecal Coliform Bacteria <1.1 MPN/100 mL

Standard = Regulation to swimming pool business operations or other similar activities, Recommendation of Public Health Committee No.1, B.E. 2550

Method = Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23<sup>rd</sup> Edition, 2017.

Reported results refer to submitted samples only.

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(Sukanda Phaytaisong)

Laboratory Operator

01 / 08 / 22



(Thanutporm Numtrakulpattana)

Laboratory Supervisor

01 / 08 / 22



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Ref. No. W151/08/22

Report No. 2208/188

B-Quo-1614/2022

### Swimming Pool Water Quality Analysis Report

Project : Kantary Banchang  
Client Name : Kasemkij Co., Ltd.  
Sampling by : Kasemkij Co., Ltd.

Sampling Date : 3 August 2022  
Date Received : 4 August 2022  
Date of Analysis : 4-11 August 2022  
Date Reported : 19 August 2022

Parameter	Analytical Method	Swimming Pool	Standard
Total Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 B.)	<1.1	Less than 10
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	None	None

**Remark:**

Sample Characteristics: Clear

Detection Limit: Fecal Coliform Bacteria <1.1 MPN/100 mL

Standard = Regulation to swimming pool business operations or other similar activities, Recommendation of Public Health Committee No.1, B.E. 2550

Method = Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23<sup>rd</sup> Edition, 2017.

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(Phattarawadee Tabchum)

Laboratory Operator

19 / 08 / 22



(Preeyanuch Tasajan)

Laboratory Supervisor

19 / 08 / 22

F1201-12/20-08-21/JOB2207



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Ref. No. W013/09/22

Report No. 2209/040

B-Quo-1705/2022

### Swimming Pool Water Quality Analysis Report

Project : Kantary Banchang  
Client Name : Kasemkij Co., Ltd.  
Sampling by : Kasemkij Co., Ltd.  
Sampling Date : 1 September 2022  
Date Received : 1 September 2022  
Date of Analysis : 1-8 September 2022  
Date Reported : 15 September 2022

Parameter	Analytical Method	Swimming Pool	Standard
Total Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 B.)	<1.1	Less than 10
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	None	None

**Remark:**

Sample Characteristics: Clear

Detection Limit: Fecal Coliform Bacteria <1.1 MPN/100 mL

Standard = Regulation to swimming pool business operations or other similar activities, Recommendation of Public Health Committee No.1, B.E. 2550

Method = Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23<sup>rd</sup> Edition, 2017.

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Orapan Boontanoi

(Orapan Boontanoi)

Laboratory Operator

15 / 09 / 22

Khwanapha Thongnop

(Khwanapha Thongnop)

Laboratory Supervisor

15 / 09 / 22





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Ref. No. W201/10/22

Report No. 2210/219

B-Quo-1867/2022

### Swimming Pool Water Quality Analysis Report

Project : Kantary Banchang  
Client Name : Kasemkij Co., Ltd.  
Sampling by : Kasemkij Co., Ltd.

Sampling Date : 5 October 2022  
Date Received : 6 October 2022  
Date of Analysis : 6-17 October 2022  
Date Reported : 18 October 2022

Parameter	Analytical Method	Swimming Pool	Standard
Total Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 B.)	<1.1	Less than 10
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	None	None

**Remark:**

Sample Characteristics: Clear

Detection Limit: Fecal Coliform Bacteria <1.1 MPN/100 mL

Standard = Regulation to swimming pool business operations or other similar activities, Recommendation of Public Health Committee No.1, B.E. 2550

Method = Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23<sup>rd</sup> Edition, 2017.

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Orapan Boontanoi

(Orapan Boontanoi)

Laboratory Operator  
14 / 10 / 22

Khwanapha Thongnop

(Khwanapha Thongnop)

Laboratory Supervisor  
18 / 10 / 22

F1201-12/20-08-21/JOB2209



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Ref. No. W121/11/22

Report No. 2211/148

125/10/65

### Swimming Pool Water Quality Analysis Report

Project : Kantary Banchang  
Client Name : Kasemkij Co., Ltd.  
Sampling by : Kasemkij Co., Ltd.

Sampling Date : 2 November 2022  
Date Received : 3 November 2022  
Date of Analysis : 8-10 November 2022  
Date Reported : 17 November 2022

Parameter	Analytical Method	Swimming Pool	Standard
Total Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 B.)	<1.1	Less than 10
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	None	None

#### Remark:

Sample Characteristics: Clear

Detection Limit: Fecal Coliform Bacteria <1.1 MPN/100 mL

Standard = Regulation to swimming pool business operations or other similar activities, Recommendation of Public Health Committee No.1, B.E. 2550

Method = Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23<sup>rd</sup> Edition, 2017.

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Orapan Boontanoi

(Orapan Boontanoi)

Laboratory Operator

17 / 11 / 22

Khwanapha Thongnop

(Khwanapha Thongnop)

Laboratory Supervisor

17 / 11 / 22



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Ref. No. W009/12/22  
50/11/65

Report No. 2212/126

### Swimming Pool Water Quality Analysis Report

Project : Kantary Banchang  
Client Name : Kasemkij Co., Ltd.  
Sampling by : Kasemkij Co., Ltd.

Sampling Date : 1 December 2022  
Date Received : 1 December 2022  
Date of Analysis : 1-9 December 2022  
Date Reported : 13 December 2022

Parameter	Analytical Method	Swimming Pool	Standard
Total Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 B.)	<1.1	Less than 10
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	None	None

**Remark:**

Sample Characteristics: Clear


Detection Limit: Fecal Coliform Bacteria <1.1 MPN/100 mL


Standard = Regulation to swimming pool business operations or other similar activities, Recommendation of Public Health Committee No.1, B.E. 2550

Method = Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23<sup>rd</sup> Edition, 2017.

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(Orapan Boontanoi)  
Laboratory Operator  
13 / 12 / 22

  
(Khwannapha Thongnop)  
Laboratory Supervisor  
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F1201-12/20-08-21/JOB2211