

ภาคผนวก ง

ผลการติดตามตรวจสอบคุณภาพสิ่งแวดล้อม



คุณภาพน้ำทิ้ง



TEST REPORT

Date of Issue June 20, 2024

Report No. TRCM67/11906

Page (s) 01/01

ห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ว - 139

Customer Name & Address
(provided by customer)

NOVOTEL CHIANG MAI NIMMAN JOURNEYHUB
7/77 Moo 2, Huay Kaew Road, Chang Phueak, Muang Chiangmai,
Chiang Mai 50300 Thailand.

Sample Description
(provided by customer)

น้ำเสียก่อนบำบัด Influent

Sample Code

CM67/05215-001

Sample Condition

Sample type: Waste Water
Packaging : glass bottle and plastic bottle, tightly sealed.
Quantity : 2 bottles, Weight/Volume (Total) : 3 L.
Receipt condition : room temperature, normal condition.

Date of sample received

June 11, 2024

Date of analysis

June 11, 2024 - June 20, 2024

RESULT (S)

Test Item	Result	Standard	Unit	LOD	Reference Method
Oil and Grease	4.15	≤ 20	mg/L	-	APHA - AWWA (2017)
Total Kjeldahl Nitrogen	12.24	≤ 35	mg/L	-	APHA - AWWA (2017)
BOD	43.40	≤ 20	mg/L	-	APHA - AWWA (2017)
pH	7.16	5 - 9	-	-	APHA - AWWA (2017)
Settleable Solids *	0.8	≤ 0.5	mL/L	-	APHA - AWWA (2017)
Sulfide	1.60	≤ 1.0	mg/L	-	APHA - AWWA (2017)
Suspended Solids (SS)	52.25	≤ 30	mg/L	-	APHA - AWWA (2017)
Total Dissolved Solids	320.00	≤ 500	mg/L	-	APHA - AWWA (2017) 2540C

Note : Sample was collected by customer.

: Standard : Notification of Ministry of Natural Resources and Environment

Re : Building Effluent Standards for Specific sources Types of Building Defined as Pollution sources (Hotels type A)

* : Marked tests are not accredited by DIW.

~End of Report~

(ว-139-จ-4314)

(ว-139-ก-2852)

Approved Signatory

Central Laboratory (Thailand) Co., Ltd. (Chiangmai Branch)

The results apply to the sample as received.

The report shall not be reproduced without the written official approval, except in full.

FM-QP-24-01-013-R05(18/01/64)P1/I-CM



TEST REPORT

Date of Issue June 20, 2024

Report No. TRCM67/11907

Page (s) 01/01

ห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ว - 139

Customer Name & Address
(provided by customer)

NOVOTEL CHIANG MAI NIMMAN JOURNEYHUB
7/77 Moo 2, Huay Kaew Road, Chang Phueak, Muang Chiangmai,
Chiang Mai 50300 Thailand.

Sample Description
(provided by customer)

น้ำเสียหลังบำบัด Effluent

Sample Code

CM67/05216-001

Sample Condition

Sample type: Waste Water
Packaging : glass bottle and plastic bottle, tightly sealed.
Quantity : 3 bottles, Weight/Volume (Total) : 3.25 L.
Receipt condition : room temperature, normal condition.

Date of sample received

June 11, 2024

Date of analysis

June 11, 2024 - June 20, 2024

RESULT (S)

Test Item	Result	Standard	Unit	LOD	Reference Method
Oil and Grease	3.19	≤ 20	mg/L	-	APHA - AWWA (2017)
Total Kjeldahl Nitrogen	11.70	≤ 35	mg/L	-	APHA - AWWA (2017)
BOD	42.45	≤ 20	mg/L	-	APHA - AWWA (2017)
pH	7.52	5 - 9	-	-	APHA - AWWA (2017)
Settleable Solids *	0.3	≤ 0.5	mL/L	-	APHA - AWWA (2017)
Sulfide	1.20	≤ 1.0	mg/L	-	APHA - AWWA (2017)
Suspended Solids (SS)	45.33	≤ 30	mg/L	-	APHA - AWWA (2017)
Total Dissolved Solids	332.00	≤ 500	mg/L	-	APHA - AWWA (2017) 2540C
Fecal Coliform *	54000	-	MPN/100mL	-	Standard Methods for the Examination of Water and Wastewater APHA, AWWA, WEF, 23rd Edition, 2017, Part 9221

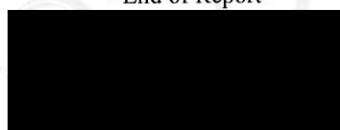
Note : Sample was collected by customer.

: Standard : Notification of Ministry of Natural Resources and Environment

Re : Building Effluent Standards for Specific sources Types of Building Defined as Pollution sources (Hotels type A)

* : Marked tests are not accredited by DIW.

~End of Report~



(ว-139-จ-4314)

(ว-139-ก-2852)

Approved Signatory

Central Laboratory (Thailand) Co., Ltd. (Chiangmai Branch)

The results apply to the sample as received.

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FM-QP-24-01-013-R05(18/01/64)P1/1-CM



คุณภาพน้ำสระว่ายน้ำ (pH และ CL)



Checklist Water Swimming Pool

NOVOTEL
HOTELS & RESORTS
CHIANG MAI
NIMMAN JOURNEYHUB

Month January YEAR 2024

Swimming Pool												
						Clean Swimming pool/Filter		Swimming Pool (sq.m)			Time	Sign
DAY	CHECK		ADD Chemical			มิเตอร์สระว่ายน้ำ						
	CL	PH	CL	SODA	SALT	Y	N	จุดครึ่งก่อน	จุดครึ่งหลัง	ยอดการใช้		
1	1.5	7.2	-	-	-	-	-	-	-	-	6.50	
2	1.5	7.2	-	-	-	-	-	-	-	-	6.50	
3	1.5	7.2	-	-	-	-	-	-	-	-	6.40	
4	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
5	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
6	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
7	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
8	1.5	7.2	-	-	-	✓	✓	-	-	-	5.30	
9	1.5	7.2	✓	-	-	-	-	-	-	-	6.40	
10	1.5	7.2	1kg	-	-	-	-	-	-	-	06.50	
11	1.5	7.2	-	-	-	-	-	-	-	-	07.00	
12	1.5	7.2	-	-	-	-	-	-	-	-	06.30	
13	1.5	7.2	-	-	-	-	-	-	-	-	07.00	
14	1.5	7.2	-	-	-	✓	✓	-	-	-	06.00	
15	1.5	7.2	-	-	-	-	-	-	-	-	06.30	
16	1.5	7.2	-	-	-	-	-	-	-	-	06.40	
17	1.5	7.2	1kg	-	-	-	-	-	-	-	06.50	
18	1.5	7.2	-	-	-	-	-	-	-	-	07.10	
19	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
20	1.5	7.2	-	-	-	-	-	-	-	-	06.40	
21	1.5	7.2	-	-	-	✓	✓	-	-	-	06.00	
22	1.5	7.2	-	-	-	-	-	-	-	-	06.30	
23	1.5	7.2	-	-	-	-	-	-	-	-	06.30	
24	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
25	1.5	7.2	-	-	-	✓	✓	-	-	-	06.20	
26	1.5	7.2	-	-	-	-	-	-	-	-	06.20	
27	1.5	7.2	-	-	-	-	-	-	-	-	06.10	
28	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
29	1.5	7.2	-	-	-	✓	✓	-	-	-	05.30	
30	1.5	7.2	-	-	-	-	-	-	-	-	06.20	
31	1.5	7.2	1kg	-	-	-	-	-	-	-	07.00	

Engineer comment : _____

Checklist Water Swimming Pool

NOVOTEL
HOTELS & RESORTS
CHIANG MAI
NIMMAN JOURNEYHUB

Month February YEAR 2024

Swimming Pool												
DAY	CHECK		ADD Chemical			Clean Swimming pool/Filter		Swimming Pool (sq.m)			Time	Sign
	CL	PH	CL	SODA	SALT	Y	N	มีคลอรีนในน้ำ				
								จุดเริ่มก่อน	จุดเริ่มหลัง	ยอดการใช้		
1	1.5	7.2	-	-	-	-	-	-	-	-	07.00	
2	1.5	7.2	-	-	-	-	-	-	-	-	07.00	
3	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
4	1.5	7.2	-	-	-	✓	-	-	-	-	06.00	
5	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
6	1.5	7.2	-	-	-	-	-	-	-	-	06.30	
7	0.5	7.2	-	-	-	-	-	-	-	-	6.40	
8	1.5	7.2	0.5	-	-	-	-	-	-	-	6.50	
9	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
10	1.5	7.2	-	-	-	-	-	-	-	-	07.50	
11	1.5	7.2	-	-	-	✓	-	-	-	-	06.00	
12	1.5	7.2	-	-	-	-	-	-	-	-	06.00	
13	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
14	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
15	1.5	7.2	-	-	-	-	-	-	-	-	06.40	
16	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
17	1.5	7.2	1kg	-	-	-	-	-	-	-	06.40	
18	1.5	7.2	-	-	-	✓	-	-	-	-	06.00	
19	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
20	1.5	7.2	-	-	-	-	-	-	-	-	06.55	
21	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
22	1.5	7.2	-	-	-	-	-	✓	-	-	6.30	
23	0.2	7.2	-	-	-	-	-	-	-	-	06.30	
24	1.5	7.2	1kg	-	-	-	-	-	-	-	06.50	
25	1.5	7.2	-	-	-	✓	-	-	-	-	06.00	
26	1.5	7.2	-	-	-	-	-	-	-	-	06.40	
27	1.5	7.2	-	-	-	-	-	-	-	-	06.50	
28	1.5	7.2	0.7	-	-	-	-	-	-	-	6.20	
29	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
30												
31												

Engineer comment :

Checklist Water Swimming Pool

Month

March

YEAR

2024.

NOVOTEL
HOTELS & RESORTS
CHIANG MAI
NIMMAN JOURNEYHUB

Swimming Pool												
						Clean Swimming pool/Filter		Swimming Pool (sq.m)			Time	Sign
DAY	CHECK		ADD Chemical					มิเตอร์สรวายน้ำ				
	CL	PH	CL	SODA	SALT	Y	N	จดครั้งก่อน	จดครั้งหลัง	ยอดการใช้		
1	1.5	7.2	-	-	-	✓	-	-	-	-	7.00	
2	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
3	1.5	7.2	-	-	-	-	-	-	-	-	6.40	
4	1.5	7.2	0.7	-	-	✓	-	-	-	-	7.00	
5	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
6	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
7	1.5	7.2	-	-	-	✓	-	-	-	-	6.40	
8	1.5	7.2	-	-	-	-	-	-	-	-	6.20	
9	1.5	7.2	0.7	-	-	✓	-	-	-	-	7.00	
10	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
11	0.5	7.2	-	-	-	✓	-	-	-	-	6.40	
12	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
13	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
14	1.5	7.2	-	-	-	✓	-	-	-	-	6.00	
15	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
16	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
17	1.5	7.2	-	-	-	✓	-	-	-	-	7.00	
18	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
19	1.5	7.2	-	-	-	-	-	-	-	-	6.20	
20	1.5	7.2	0.7	-	-	✓	-	-	-	-	6.20	
21	1.5	7.2	-	-	-	-	-	-	-	-	6.20	
22	1.5	7.2	-	-	-	-	-	-	-	-	6.30	
23	1.5	7.2	-	-	-	✓	-	-	-	-	7.00	
24	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
25	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
26	1.5	7.2	-	-	-	-	-	-	-	-	7.10	
27	1.5	7.2	0.7	-	-	-	-	-	-	-	6.00	
28	1.5	7.2	-	-	-	✓	-	-	-	-	6.50	
29	1.5	7.2	-	-	-	-	-	-	-	-	6.50	
30	1.5	7.2	-	-	-	-	-	-	-	-	7.00	
31	1.5	7.2	-	-	-	-	-	-	-	-	6.40	

Engineer comment :

* 18/19 จดสว-น้ำดื่ม *

Checklist Water Swimming Pool

NOVOTEL
HOTELS & RESORTS
CHIANG MAI
NIMMAN JOURNEYHUB

Month

April

YEAR

2024

Swimming Pool									
DAY	CHECK		ADD Chemical			Clean Swimming pool/Filter		Time	Sign
	CL	PH	CL	SODA	SALT	Y	N		
1	1.5	7.2	-	-	-	✓	-	6.00	
2	1.5	7.2	-	-	-	-	-	7.00	
3	1.5	7.2	-	-	-	-	-	6.50	
4	1.5	7.2	-	-	-	✓	-	06.00	
5	1.5	7.2	-	-	-	-	-	06.50	
6	1.5	7.2	-	-	-	-	-	07.00	
7	1.5	7.2	-	-	-	✓	-	6.00	
8	1.5	7.2	-	-	-	-	-	6.50	
9	1.5	7.2	-	-	-	-	-	6.50	
10	1.5	7.2	-	-	-	✓	-	06.00	
11	1.5	7.2	-	-	-	-	-	06.40	
12	1.5	7.2	-	-	-	-	-	06.30	
13	1.5	7.2	-	-	-	✓	-	06.00	
14	1.5	7.2	-	-	-	-	-	06.50	
15	1.5	7.2	-	-	-	-	-	06.20	
16	1.5	7.2	-	-	-	✓	-	06.00	
17	1.5	7.2	-	-	-	-	-	07.00	
18	1.5	7.2	1kg.	-	-	✓	-	06.00	
19	1.5	7.2	-	-	-	✓	-	06.00	
20	1.5	7.2	-	-	-	-	-	07.00	
21	1.5	7.2	-	-	-	-	-	07.00	
22	1.5	7.2	-	-	-	✓	-	06.00	
23	1.5	7.2	-	-	-	-	-	06.50	
24	1.5	7.2	-	-	-	-	-	06.45	
25	1.5	7.2	-	-	-	✓	-	06.00	
26	1.5	7.2	1kg.	-	-	-	-	06.50	
27	1.5	7.2	-	-	-	✗	-	06.30	
28	1.5	7.2	-	-	-	✓	-	06.00	
29	1.5	7.2	-	-	-	-	-	06.50	
30	1.5	7.2	-	-	-	-	-	06.00	
31	1.5	7.2	-	-	-	✓	-	06.00	

Engineer comment :

Checklist Water Swimming Pool

Month

MAY

YEAR

2024

Swimming Pool												
						Clean Swimming pool/Filter		Swimming Pool (sq.m)			Time	Sign
DAY	CHECK		ADD Chemical			มิเตอร์สรวายน้ำ						
	CL	PH	CL	SODA	SALT	Y	N	จัดครั้งแรก	จัดครั้งหลัง	ยอดการใช้		
1	1.5	7.2	—	—	—	✓	—				06.00	
2	1.5	7.2	—	—	—	✓	—				06.50	
3	1.5	7.2	—	—	—	✓	—				06.00	
4	1.5	7.2	—	—	—	—	—				06.30	
5	1.5	7.2	—	—	—	—	—				6.30	
6	1.5	7.2	—	—	—	✓	—				6.00	
7	1.5	7.2	—	—	—	—	—				06.40	
8	1.5	7.2	—	—	—	—	—				06.50	
9	1.5	7.2	—	—	—	✓	—				06.00	
10	1.5	7.2	—	—	—	—	—				06.45	
11	1.5	7.2	—	—	—	—	—				07.00	
12	1.5	7.2	0.8	—	—	✓	—				6.00	
13	1.5	7.2	—	—	—	✓	—				6.00	
14	1.5	7.2	—	—	—	—	—				6.00	
15	1.5	7.2	—	—	—	—	—				06.50	
16	1.5	7.2	—	—	—	✓	—				06.00	
17	1.5	7.2	1kg.	—	—	—	—				07.00	
18	1.5	7.2	—	—	—	—	—				06.50	
19	1.5	7.2	—	—	—	✓	—				6.30	
20	1.5	7.2	—	—	—	—	—				7.00	
21	1.5	7.2	—	—	—	—	—				06.00	
22	1.5	7.2	1kg.	—	—	✓	—				06.00	
23	1.5	7.2	—	—	—	—	—				6.30	
24	1.5	7.2	—	—	—	—	—				6.00	
25	1.5	7.2	—	—	—	✓	—				06.00	
26	1.5	7.2	1kg.	—	—	—	—				07.00	
27	1.5	7.2	—	—	—	—	—				06.00	
28	1.5	7.2	—	—	—	✓	—				06.00	
29	1.5	7.2	—	—	—	—	—				07.00	
30	1.5	7.2	—	—	—	—	—				06.00	
31	1.5	7.2	—	—	—	✓	—				6.00	

Engineer comment :

Checklist Water Swimming Pool

Month

June

YEAR

2024

NOVOTEL
HOTELS & RESORTS
CHIANG MAI
NIMMAN JOURNEYHUB

Swimming Pool												
DAY	CHECK		ADD Chemical			Clean Swimming pool/Filter		Swimming Pool (sq.m)			Time	Sign
								มิเตอร์สรวายน้ำ				
	CL	PH	CL	SODA	SALT	Y	N	จัดครั้งก่อน	จัดครั้งหลัง	ยอดการใช้		
1	-	-	-	-	-	-	-	-	-	-	6.30	
2	-	-	-	-	-	-	-	-	-	-	6.30	
3	1.5	7.6	-	-	-	✓	-	-	-	-	6.00	
4	1.5	7.6	-	-	-	-	-	-	-	-	6.00	
5	1.5	7.6	-	-	-	-	-	-	-	-	6.30	
6	1.5	7.6	-	-	-	✓	-	-	-	-	6.00	
7	0.5	8.8	-	-	-	✓	-	-	-	-	6.00	
8	1.5	7.6	-	-	-	-	-	-	-	-	6.30	
9	1.5	7.6	-	-	-	-	-	-	-	-	6.30	
10												
11												
12												
13												
14												
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31												

Engineer comment :
