

ANALYSIS REPORT

CUSTOMER NAME	: IDEO MOBI SUKHUMVIT EASTGATE	RECEIVED DATE	: AUGUST 29, 2024
ADDRESS	: 4371 SUKHUMVIT ROAD BANG NA BANG NA BANGKOK 10260	ANALYTICAL DATE	: AUGUST 29 - SEPTEMBER 6, 2024
CONTACT INFORMATION	: TEL : 091-8369690 e-mail : mbse10260@gmail.com	ISSUE DATE	: SEPTEMBER 10, 2024
SAMPLING SOURCE	: -	REPORT NO.	: 2024-U083403
SAMPLE TYPE	: WATER SUPPLY	WORK NO.	: 2024-008109
SAMPLING DATE	: AUGUST 29, 2024	ANALYSIS NO.	: T24AT787-0001
SAMPLING TIME	: 15:45 HOUR		
SAMPLING METHOD ^c	: GRAB AND STERILE TECHNIQUE		
SAMPLING BY ^c	: MR PEERAPAT BANYATSIN		
ANALYZED BY	: MISS KEWALEE SUKHAREE		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ป้อนน้ำดิบขึ้นใต้ดิน T24AT787-0001		
pH ^c	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H ⁺ B AND 1060 B	7.2 (31°C)	6.5-8.5	-
APPARENT COLOUR ^c	Pt-Co	SINGLE-WAVELENGTH METHOD (PROPOSED); (SM: PART 2120 C)	2.86	≤ 15	1.00
TURBIDITY ^c	NTU	NEPHELOMETRIC METHOD (SM: PART 2130 B)	0.8	≤ 5	0.1
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	169	≤ 500	25
TOTAL HARDNESS ^a	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM: PART 2340 C)	89.3	≤ 300	4.0
CHLORIDE ^a	mg/L Cl ⁻	ARGENTOMETRIC METHOD (SM: 4500-Cl ⁻ B)	21.7	≤ 250	2.0
FLUORIDE ^a	mg/L F ⁻	SPADNS METHOD (SM: PART 4500-F D)	0.30	≤ 0.7	0.02
NITRATE ^c	mg/L NO ₃ ⁻	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ ⁻ E)	ND	≤ 50	0.09
NITRITE ^c	mg/L NO ₂ ⁻	NED COLOURIMETRIC METHOD (SM: PART 4500-NO ₂ ⁻ B)	ND	≤ 3	0.07
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM: PART 4500 -SO ₄ ²⁻ E)	28.9	≤ 250	0.3
METALS					
ARSENIC ^c	mg/L As	HYDRIDE GENERATION AAS METHOD (SM: PART 3114 C)	ND	≤ 0.01	0.0003
CADMIUM ^c	mg/L Cd	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.003	0.002
COPPER ^c	mg/L Cu	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 1	0.002
IRON ^c	mg/L Fe	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.3	0.005
LEAD ^c	mg/L Pb	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.01	0.003
MANGANESE ^c	mg/L Mn	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.3	0.002
MERCURY ^c	mg/L Hg	IN-HOUSE METHOD: UAE.TP.HEM.002 BASED ON SM: PART 3112 B	ND	≤ 0.001	0.0001
TOTAL CHROMIUM ^c	mg/L Cr	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.05	0.005
ZINC ^c	mg/L Zn	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 3	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ป้อน้ำดิบขึ้นใต้ดิน T24AT787-0001		
MICROBIOLOGY					
COLIFORM BACTERIA ^c	/100 mL	PRESENCE-ABSENCE (P-A) COLIFORM TEST (SM: PART 9221D)	NOT DETECTED	NOT DETECTED	-
<i>E. coli</i> ^b	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221D AND F)	NOT DETECTED	NOT DETECTED	-
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR -		

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

REGULATORY STANDARD : DRINKING WATER STANDARDS, ISSUED UNDER THE DEPARTMENT OF HEALTH B.E. 2563, (2020).

ND : NOT DETECTED.

Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

ANALYSIS REPORT

CUSTOMER NAME	: IDEO MOBI SUKHUMVIT EASTGATE	RECEIVED DATE	: AUGUST 29, 2024
ADDRESS	: 4371 SUKHUMVIT ROAD BANG NA BANG NA BANGKOK 10260	ANALYTICAL DATE	: AUGUST 29 - SEPTEMBER 6, 2024
CONTACT INFORMATION	: TEL : 091-8369690 e-mail : mbse10260@gmail.com	ISSUE DATE	: SEPTEMBER 10, 2024
SAMPLING SOURCE	: -	REPORT NO.	: 2024-U083404
SAMPLE TYPE	: WATER SUPPLY	WORK NO.	: 2024-008109
SAMPLING DATE	: AUGUST 29, 2024	ANALYSIS NO.	: T24AT787-0002
SAMPLING TIME	: 15:35 HOUR		
SAMPLING METHOD ^c	: GRAB AND STERILE TECHNIQUE		
SAMPLING BY ^c	: MR PEERAPAT BANYATSIN		
ANALYZED BY	: MISS KEWALEE SUKHAREE		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			กล่องน้ำดื่ม 5 T24AT787-0002		
pH ^c	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H ⁺ B AND 1060 B	7.4 (31°C)	6.5-8.5	-
APPARENT COLOUR ^c	Pt-Co	SINGLE-WAVELENGTH METHOD (PROPOSED); (SM: PART 2120 C)	2.86	≤ 15	1.00
TURBIDITY ^c	NTU	NEPHELOMETRIC METHOD (SM: PART 2130 B)	0.7	≤ 5	0.1
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	166	≤ 500	25
TOTAL HARDNESS ^a	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM: PART 2340 C)	90.1	≤ 300	4.0
CHLORIDE ^a	mg/L Cl ⁻	ARGENTOMETRIC METHOD (SM: 4500-Cl ⁻ B)	21.2	≤ 250	2.0
FLUORIDE ^a	mg/L F ⁻	SPADNS METHOD (SM: PART 4500-F ⁻ D)	0.28	≤ 0.7	0.02
NITRATE ^c	mg/L NO ₃ ⁻	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ ⁻ E)	ND	≤ 50	0.09
NITRITE ^c	mg/L NO ₂ ⁻	NED COLOURIMETRIC METHOD (SM: PART 4500-NO ₂ ⁻ B)	ND	≤ 3	0.07
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM: PART 4500 -SO ₄ ²⁻ E)	27.9	≤ 250	0.3
METALS					
ARSENIC ^c	mg/L As	HYDRIDE GENERATION AAS METHOD (SM: PART 3114 C)	ND	≤ 0.01	0.0003
CADMIUM ^c	mg/L Cd	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.003	0.002
COPPER ^c	mg/L Cu	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 1	0.002
IRON ^c	mg/L Fe	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.3	0.005
LEAD ^c	mg/L Pb	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.01	0.003
MANGANESE ^c	mg/L Mn	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.3	0.002
MERCURY ^c	mg/L Hg	IN-HOUSE METHOD: UAE.TP.HEM.002 BASED ON SM: PART 3112 B	ND	≤ 0.001	0.0001
TOTAL CHROMIUM ^c	mg/L Cr	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.05	0.005
ZINC ^c	mg/L Zn	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 3	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ก๊อกร้ำดขั้ร 5 T24AT787-0002		
MICROBIOLOGY					
COLIFORM BACTERIA ^c	/100 mL	PRESENCE-ABSENCE (P-A) COLIFORM TEST (SM: PART 9221D)	NOT DETECTED	NOT DETECTED	-
<i>E. coli</i> ^b	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221D AND F)	NOT DETECTED	NOT DETECTED	-
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR		
			-		

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

REGULATORY STANDARD : DRINKING WATER STANDARDS, ISSUED UNDER THE DEPARTMENT OF HEALTH B.E. 2563, (2020).

ND : NOT DETECTED.

Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

ANALYSIS REPORT

CUSTOMER NAME	: IDEO MOBI SUKHUMVIT EASTGATE	RECEIVED DATE	: AUGUST 29, 2024
ADDRESS	: 4371 SUKHUMVIT ROAD BANG NA BANG NA BANGKOK 10260	ANALYTICAL DATE	: AUGUST 29 - SEPTEMBER 6, 2024
CONTACT INFORMATION	: TEL : 091-8369690 e-mail : mbse10260@gmail.com	ISSUE DATE	: SEPTEMBER 10, 2024
SAMPLING SOURCE	: -	REPORT NO.	: 2024-U083407
SAMPLE TYPE	: WATER SUPPLY	WORK NO.	: 2024-008109
SAMPLING DATE	: AUGUST 29, 2024	ANALYSIS NO.	: T24AT787-0003
SAMPLING TIME	: 15:25 HOUR		
SAMPLING METHOD °	: GRAB AND STERILE TECHNIQUE		
SAMPLING BY °	: MR PEERAPAT BANYATSIN		
ANALYZED BY	: MISS KEWALEE SUKHAREE		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ป้อนค่าดัชนีค่าไฟฟ้า T24AT787-0003		
pH °	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H ⁺ B AND 1060 B	7.3 (32°C)	6.5-8.5	-
APPARENT COLOUR °	Pt-Co	SINGLE-WAVELENGTH METHOD (PROPOSED); (SM: PART 2120 C)	2.17	≤ 15	1.00
TURBIDITY °	NTU	NEPHELOMETRIC METHOD (SM: PART 2130 B)	0.7	≤ 5	0.1
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	151	≤ 500	25
TOTAL HARDNESS °	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM: PART 2340 C)	88.9	≤ 300	4.0
CHLORIDE °	mg/L Cl ⁻	ARGENTOMETRIC METHOD (SM: 4500-Cl ⁻ B)	21.7	≤ 250	2.0
FLUORIDE °	mg/L F ⁻	SPADNS METHOD (SM: PART 4500-F ⁻ D)	0.35	≤ 0.7	0.02
NITRATE °	mg/L NO ₃ ⁻	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ ⁻ E)	ND	≤ 50	0.09
NITRITE °	mg/L NO ₂ ⁻	NED COLOURIMETRIC METHOD (SM: PART 4500-NO ₂ ⁻ B)	ND	≤ 3	0.07
SULPHATE °	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM: PART 4500-SO ₄ ²⁻ E)	28.8	≤ 250	0.3
METALS					
ARSENIC °	mg/L As	HYDRIDE GENERATION AAS METHOD (SM: PART 3114 C)	ND	≤ 0.01	0.0003
CADMIUM °	mg/L Cd	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.003	0.002
COPPER °	mg/L Cu	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 1	0.002
IRON °	mg/L Fe	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.3	0.005
LEAD °	mg/L Pb	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.01	0.003
MANGANESE °	mg/L Mn	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.3	0.002
MERCURY °	mg/L Hg	IN-HOUSE METHOD: UAE.TP.HEM.002 BASED ON SM: PART 3112 B	ND	≤ 0.001	0.0001
TOTAL CHROMIUM °	mg/L Cr	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 0.05	0.005
ZINC °	mg/L Zn	DIRECT AIR ACETYLENE FLAME METHOD (SM: PART 3111 B)	ND	≤ 3	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ป้อน้ำดีขึ้นดาดฟ้า T24AT787-0003		
MICROBIOLOGY					
COLIFORM BACTERIA ^c	/100 mL	PRESENCE-ABSENCE (P-A) COLIFORM TEST (SM: PART 9221 D)	NOT DETECTED	NOT DETECTED	-
<i>E. coli</i> ^b	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT			-		

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

REGULATORY STANDARD : DRINKING WATER STANDARDS, ISSUED UNDER THE DEPARTMENT OF HEALTH B.E. 2563, (2020).

ND : NOT DETECTED.

Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR