

National Water Quality Laboratory

CHEMICAL & MICROBIOLOGY LABORATORY

	PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES Ministry of Water Resources, Government of Pakistan Khayban-e-Johar, H-8/1, Islamabad www.pcrwr.gov.pk	 LAB 048 17025
TEST REPORT CHEMICAL & MICROBIOLOGY		

Report Serial No	AR-09540	Total No of Pages	2
Customer Name & Address	Ammad Farooq, Airport Housing Society, Sector #4, St # 12, Plot # 19-C, Rawalpindi.		
Sampling Date & Time	29-07-2026 , 10:00 AM	Customer Code	Drinking Water
NWQL Sample Code	MCL-25702-26	Sample Receipt Date & Time	29-07-2026 12:07
Temperature of Sample at receipt °C	23.8	Humidity (%) at Receipt	61
Date(s) of Analysis	29-07-2026 to 12-08-2026	Reporting Date	3-9-2026

PHYSICAL & AESTHETIC PARAMETERS

Sr.#	Water Quality Parameter	Units	Det. Limit	Reference Methods	Permissible Limits / Tolerance Limit Potable Water (PSQCA / NSDWQ, 2010)	Acceptance Limits (AL) AL = TL – U	Results	Measurement Uncertainty U=w
1	Color*	-	-	Sensory Evaluation	Colorless	-	Colorless	-
2	Electrical Conductivity	(µS/cm)	0.11	Standard Method, 2510-B APHA, 24 th Edition	NGVS	-	246.00	± 4%
3	pH	-	0.03	Standard Method, 4500-H+ B APHA, 24 th Edition	6.5 - 8.5	6.76 - 8.16	6.62	± 4%
4	Turbidity	NTU	0.31	Standard Method, 2130B APHA, 24 th Edition	< 5	-	BDL	-

MAJOR CHEMICAL PARAMETERS

Sr.#	Water Quality Parameter	Units	Det. Limit	Reference Methods	Permissible Limits / Tolerance Limit Potable Water (PSQCA / NSDWQ, 2010)	Acceptance Limits (AL) AL = TL – U	Results	Measurement Uncertainty U=w
5	Alkalinity as CaCO ₃ *	mg/L	5	Standard Method 2320- B APHA, 24 th Edition	NGVS	-	62.00	± 6%
6	Bicarbonates*	mg/L	5.0	Standard Method 2320- B APHA, 24 th Edition	NGVS	-	62.00	± 6%

7	Calcium	mg/L	2.0	Standard Method 3500 Ca ₂₊ -B APHA, 24 th Edition	NGVS	-	29.00	± 7%
8	Carbonates*	mg/L	5.0	Standard Method 2320- B APHA, 24 th Edition	NGVS	-	BDL	-
9	Chlorides*	mg/L	2.0	Standard Method 4500- Cl- B APHA, 24 th Edition	< 250	242.50	20.00	± 3%
10	Total Hardness	mg/L	5.0	Standard Method 2340- C APHA, 24 th Edition	< 500	455.00	92.00	± 9%
11	Magnesium	mg/L	1.0	Standard Method 3500 Mg ²⁺ -B APHA, 24 th Edition	NGVS	-	5	± 6%
12	Potassium	mg/L	0.02	Standard Method 3500-K-B APHA, 24 th Edition	NGVS	-	1.00	± 5%
13	Sodium	mg/L	1.57	Standard Method 3500-Na-B APHA, 24 th Edition	NGVS	-	14.00	± 3%
14	Sulphate	mg/L	0.27	Standard Method 4500-SO ₄ ²⁻ -B APHA, 24 th Edition	NGVS	-	28.00	± 4%
15	Nitrate (N)	mg/L	0.06	Standard Method 4500-NO ₃ -B APHA, 24 th Edition	< 10	9.50	0.38	± 5%
16	TDS*	mg/L	-	APHA, 24 th Edition	< 1000	-	135	-

MICROBIOLOGICAL PARAMETERS

Sr.#	Water Quality Parameter	Units	Det. Limit	Reference Methods	Permissible Limits / Tolerance Limit Potable Water (PSQCA / NSDWQ, 2010)	Acceptance Limits (AL) AL = TL – U	Results	Measurement Uncertainty U=w (95% Confidence Limits)
17	Total Coliforms	CFU/100 ml	0	Standard Method (9222-B) APHA, 24 th Edition	0 (NSDWQ,2010)	-	-ve	-
18	Fecal Coliforms	CFU/100 ml	0	Standard Method (9222-D) APHA, 24 th Edition	0 (NSDWQ,2010)	-	-ve	-
19	<i>E-coli</i>	CFU/100 ml	0	USEPA-1603	0 (NSDWQ,2010)	-	-ve	-

NGVS: No Guideline Value Set

WHO: World Health Organization

MPN: Most Probable Number

PSQCA: Pakistan Standard Quality Control Authority

APHA: American Public Health Association,

FAO: Food & Agriculture Organization

USEPA: United States Environmental Protection Agency

AOAC: Association of Official Analytical Chemists

NSDWQ: National Standards for Drinking Water Quality

CFU: Colony Forming Unit

BDL: Below Detection Limit

QC: Quality control

MPN: Most Probable Number

*Non Accredited

**It is equals to zero and it is reported as safe

AL: Acceptance Limit ($AL = TL - U$), per ILAC-G8:09/2019. TL = Tolerance/Permissible Limit; U = Expanded Measurement Uncertainty.**Interpretation (Statement of Conformity).**

Quality of water sample based on tested chemical parameter	✓ Safe	Unsafe
Quality of water sample based on tested microbial parameter	✓ Safe	Unsafe
Remarks (if any)		

* Verified by technical manager & authorized by QC manager.

Terms & Conditions:

- Test results in this report relate only to the test item/sample submitted and tested.
- The test report shall not be reproduced except in full, without written approval of NWQL-PCRWR
- Water Quality Parameters exceeding the WHO Drinking Water Guideline values (Guidelines for Drinking-Water Quality, third editions, 2004) National Environmental Quality Standards (1999) and Pakistan Standard Quality Control Authority/National Standard for Drinking Water Quality (NSDWQ, 2010, PAKEPA) are highlighted.
- Safe - acceptance based on guard band; if the measurement result being below the acceptance limit, $AL = TL - w$. the risk of accepted items to be outside the tolerance limit is $< 2.5\%$.
- Unsafe - rejection based on guard band; if the measurement result is above the acceptance limit, $AL = TL - w$. the risk to be inside the tolerance limit is $< 2.5\%$. (ILAC-G8:09/2019).

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