



# **QUARTERLY REPORT BOTTLED WATER QUALITY**

**(July-September, 2019)**



PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES  
Ministry of Science & Technology  
Khyban-e-Johar, H-8/1, Islamabad.  
[www.pcrwr.gov.pk](http://www.pcrwr.gov.pk)

**July-September, 2019**



## SUMMARY

The poor quality of drinking water has forced a large cross-section of citizens to buy bottled water. However, many of the mineral water companies were found selling contaminated water. To monitor and improve the quality of bottled water, the government of Pakistan through Ministry of Science and Technology has designated the task for quarterly monitoring of bottled/mineral water brands to PCRWR. According to the monitoring report for the quarter July-September, 2019 following is the brief overview of the findings.

### Quarterly Monitoring of Bottled/Mineral Water (July-September, 2019)

| Item                            | No. | % age |
|---------------------------------|-----|-------|
| Total No. of Brands Collected   | 101 | -     |
| Overall Safe Brands             | 96  | 95    |
| Overall Unsafe Brands           | 05  | 5     |
| Chemically Safe Brands          | 96  | 95    |
| Chemically Unsafe Brands        | 05  | 5     |
| Microbiologically Safe Brands   | 101 | 100   |
| Microbiologically Unsafe Brands | 0   | 0     |

| Name of Targeted Cities | Islamabad, Rawalpindi, Karachi, Multan, Lahore, Peshawar, Bahawalpur, Tando Jam, Quetta. |   |
|-------------------------|--|---|
| Unsafe Brands           | <b>TAJ Pure Water</b>  | 16 km, Hasil Pur Road ,Dera Bakha Bahawalpur<br>tajwater pk@gmail.com                             |
|                         | <b>Livon</b>   | A Product By: Murtaza Traders: Suite 2, Khizaar Corner, R -143,Z -4,Gulshan - e - Maymar Karachi  |
|                         | <b>Sunlay</b>  | Hani Patel Enterprises: Plot No.60,Sec 51,Super Highway Karachi<br>hanipatelenterprises@gmail.com |
|                         | <b>MM Pure Drinking Water</b>  | Burns Road, Shahr-e-Liaquat, Karachi.<br>03222702506  |
|                         | <b>Jami Water</b>  | A Product of Jami Water Services:356-E PIA Housing Society PIA Road, Lahore www.jamiwater.com     |



## INTRODUCTION

Drinking water quality is deteriorating continually due to biological contamination from human waste, chemical pollutants from industries and agricultural inputs. Piped water also gets contaminated because pipes are laid very close to sewerage lines or open drains and cause many serious water borne diseases. It was found that 45% of infant deaths have been attributed to diarrhea and about 60% to overall infectious waterborne diseases in Pakistan. According to the World Health Organization (WHO) 25-30% of the diseases are gastro-intestinal in nature. The poor quality of drinking water has forced a large cross-section of citizens to buy bottled water. As a consequence of this expanding market a mushroom growth of bottled water industry in the country is witnessed during the last few years. However, many of the mineral water companies were found selling contaminated water. To monitor and improve the quality of bottled water, the government of Pakistan has designated the PCRWR as focal point agency.

1. Ministry of Science & Technology informed PCRWR Vide U.O. No. 5(21)/2004-ATA-II dated 17.10.2005 that the Cabinet in its meeting under the chairmanship of Prime Minister directed Ministry of Science & Technology to undertake regular survey/samples of bottled/mineral water and publicize the results on a quarterly basis and follow up with punitive/legal action.
2. Ministry of Science & Technology has assigned the task of quality monitoring of bottled water and publicize the results to PCRWR Vide U.O. No.1(1)/2005-Secy (MoST) dated 8.12.2005.

## PCRWR SAMPLING METHODOLOGY

|   |   |
|---|---|
| <b>No. of Brands Collected</b>  | 101   |
| <b>No. of Cities Targeted</b>   | 09 (Islamabad, Rawalpindi, Tando Jam, Lahore, Multan, Bahawalpur, Karachi, Peshawar, Quetta)  |
| <b>Composition of Sampling Team as per MoU Signed between PCRWR &amp; PSQCA</b> | One Research Officer and one Laboratory Assistants from PCRWR and Senior staff member and field officer from PSQCA.   |
| <b>Sampling Procedure</b>   | Samples of 101 commercially available brands of mineral/bottled water were collected from local market of 9 cities of Pakistan. These samples were collected by the senior staff members of National Water Quality Laboratory (NWQL) of PCRWR Head Office and Regional/district Water Quality Laboratories of PCRWR during July-September, 2019. A set of four bottles of each brand was collected and sealed on site. Identification codes were allotted to all the brands according to PCRWR Bottled Water Classification System. |
| <b>Transparency</b>   | Sample No. 1<br>Handed over to shopkeeper at the time of sample collection;   |
|   | Sample No. 2<br>Preserved in the National Water Quality Laboratory of PCRWR, Islamabad for future record.   |
|   | Sample No. 3<br>Used for Microbiological Analysis   |
|   | Sample No. 4<br>Used for Physico-chemical Analysis  |



## PCRWR BOTTLED WATER CLASSIFICATION SYSTEM

| Brand Name          | PCRWR Code | City       | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper      | Manufacturer's Address   |
|---------------------|------------|------------|--------------------|----------------|-----------|---|--|
| <b>Aqua Green</b>   | BWW-01     | Islamabad  | 21/08/2019         | 12/2019        | 0.5 Liter | Collected from manufacturing point        | Aqua Green Plot No.372 Japan Road, Naval Encourage Gate No.2, Islamabad.                           |
| <b>Deosai</b>       | BWW-02     | Islamabad  | 21/08/2019         | 12/2019        | 1.5 Liter | Collected from manufacturing point        | Plot No 32 Khayabana-e-Johar, Industrial area, I-9/2 Islamabad.                                    |
| <b>Water Empire</b> | BWW-03     | Islamabad  | 21/08/2019         | 12/2019        | 0.6 Liter | Collected from manufacturing point        | SMC Pvt Ltd. Plot No 56,bhander Japan Road Islamabad.  |
| <b>Pacific Pure</b> | BWW-04     | Islamabad  | 21/08/2019         | 12/2019        | 1.5 Liter | Collected from manufacturing point        | Tayyaba Beverages Pvt Ltd.1 km Japan Road, Zone V, Islamabad                                       |
| <b>Seven Stream</b> | BWW-05     | Islamabad  | 12/09/2019         | 12/2019        | 0.5 Liter | Collected from manufacturing point        | Plot No 32 Street # 03 sector I-10/3 Islamabad   |
| <b>Maple Plus</b>   | BWW-06     | Islamabad  | 27/08/2019         | 02/2020        | 0.6 Liter | Collected from manufacturing point        | Maple Plus Purification Plant Plot No.2, Federal Area, Sohan Islamabad.                            |
| <b>Calci Dew</b>    | BWW-07     | Islamabad  | 21/08/2019         | -              | 0.6 Liter | Collected from manufacturing point        | Plot 3 Main Sohan Stop Expressway Islamabad, Pakistan  |
| <b>Nectar</b>       | BWW-08     | Islamabad  | 27/08/2019         | 12/2019        | 0.5 Liter | Collected from manufacturing point        | Islamabad Expressway Near Paradise Complex Kuri road Islamabad.                                    |
| <b>Softin</b>       | BWW-09     | Islamabad  | 27/08/2019         | 02/2020        | 1.5 Liter | Collected from manufacturing point        | Manufactured by: SOFTIN PURE WATER Pindorian Islamabad   |
| <b>Fresh Life</b>   | BWW-10     | Islamabad  | 27/08/2019         | 12/2019        | 0.5 Liter | Collected from manufacturing point        | Approved By Frseh Life Pindorian Road, Main Khana Dak, Islamabad                                   |
| <b>Nestol</b>       | BWW-11     | Islamabad  | 27/08/2019         | 12/2019        | 0.6 Liter | Collected from manufacturing point        | Khana Dak, Park Area Islamabad. 0300-5303135 0315-2340090  |
| <b>Aquantis</b>     | BWW-12     | Islamabad  | 27/08/2019         | 12/2019        | 1.5 Liter | Collected from manufacturing point        | Quality Providers: Bismillah Plaza Ashraf Town Pindorian Islamabad.                                |
| <b>Sea Pack</b>     | BWW-13     | Islamabad  | 27/08/2019         | 11/2019        | 0.5 Liter | Collected from manufacturing point        | Kiyani Plaza Ashraf Town Pindorian, Islamabad Email: info.seapack@gmail.com                        |
| <b>Springley</b>    | BWW-14     | Islamabad  | 28/08/2019         | -              | 1.5 Liter | Plot No. 1 Muhammadi Town Sohan Islamabad | Qarshi Industries(Pvt.)Ltd Jam-e-Shirin Boulevard, 15-G Gulberg III Lahore                         |
| <b>MUZN</b>         | BWW-15     | Islamabad  | 28/08/2019         | 12/2019        | 1.5 Liter | Collected from manufacturing point        | MAK International Ghouri Town phase 1 Islamabad 03449306171  |
| <b>Breen</b>        | BWW-16     | Islamabad  | 28/08/2019         | 11/2019        | 1.5 Liter | Collected from manufacturing point        | A Product of Blessings Beverages and General Order Suppliers: Khana East Services Road, Islamabad. |
| <b>MEHR</b>         | BWW-17     | Rawalpindi | 28/08/2019         | 12/2019        | 1.5 Liter | Collected from manufacturing point        | Bottled by: Pir Mehr Ali Shah Arid Agriculture University Murree Road Rawalpindi                   |



| Brand Name            | PCRWR Code | City       | Date of Collection | Date of Expiry | Size       | Name & Address of Seller/Shop Keeper                                    | Manufacturer's Address   |
|-----------------------|------------|------------|--------------------|----------------|------------|---|--|
| <b>Elim</b>           | BWW-18     | Islamabad  | 12/09/2019         | 12/2019        | 0.5 Liter  | Collected from manufacturing point                                      | Plot No.195, Street No.2, Sector I-9/3, Islamabad.   |
| <b>Water Plus</b>     | BWW-19     | Islamabad  | 12/09/2019         | -              | 0.5 Liter  | Collected from manufacturing point                                      | Plot No. 235, St 6, 1-9/2, Industrial Area, Islamabad  |
| <b>Venora</b>         | BWW-20     | Islamabad  | 12/09/2019         | 12/2019        | 1.5 Liter  | Collected from manufacturing point                                      | Plot No.238, St#8, 1-9/3 Islamabad 051-4432848   |
| <b>Piyaas Plus</b>    | BWW-21     | Bahawalpur | 20/08/2019         | 07/2020        | 0.6 Liter  | Abdullah General Store Opp.BVH Bahawalpur                               | Mouza Zakira Samma Satta. Head Off: 59-A, Ghalla Mandi, Bahawalpur, Pakistan                       |
| <b>National</b>       | BWW-22     | Bahawalpur | 20/08/2019         | 07/2019        | 0.5 Liter  | Shan Sweets & Bakers Railway Road, Bahawalpur.                          | Nazir Enterprises Dera Bakha Bahawalpur Nazirenterprises509@g mail.com                             |
| <b>Gourmet</b>        | BWW-23     | Bahawalpur | 20/08/2019         | 06/2020        | 0.6 Liter  | Gourmet Sweets & Bakers Railway Road, Bahawalpur.                       | Gourmet Foods: Gate # 1, Plot 1-5, Sunder Industrial Estate, Raiwind Sunder Road, Lahore, Pakistan |
| <b>Nestle(Active)</b> | BWW-24     | Bahawalpur | 20/08/2019         | 05/2020        | 0.55 Liter | Med Plus Pharmacy Commercial Area Bahawalpur.                           | Bottled By Nestle Pakistan Ltd. 308-Upper Mall, Lahore   |
| <b>AQUAFINA</b>       | BWW-25     | Bahawalpur | 20/08/2019         | 07/2020        | 0.5 Liter  | Med Plus Pharmacy Commercial Area Bahawalpur.                           | Filled by Lotte Akhtar Beverages(Pvt)Ltd.32-N,Gulberg II ,Lahore                                   |
| <b>AQUAFINE</b>       | BWW-26     | Bahawalpur | 20/08/2019         | 03/2020        | 0.6 Liter  | Abdullah General Store Opp. BVH Bahawalpur                              | -  |
| <b>7 Smart</b>        | BWW-27     | Bahawalpur | 20/08/2019         | 06/2020        | 0.5 Liter  | Abdullah General Store Opp. BVH Bahawalpur                              | Madina International Co. Near Eid Gah Road, Khanqah Sharif (BWP) Pakistan. 0300-7053898            |
| <b>Victoria</b>       | BWW-28     | Bahawalpur | 20/08/2019         | 06/2020        | 0.5 Liter  | Life Medical Store Opp. BVH Bahawalpur                                  | J.R Trader:T.M No.539472   |
| <b>Elayn Plus</b>     | BWW-29     | Bahawalpur | 20/08/2019         | 06/2020        | 0.6 Liter  | Shan Sweets & Bakers Railway Road, Bahawalpur.                          | A Product Of Sajjid Food Industrey Shadab Colony (Hamaytian) Bahawalpur                            |
| <b>TAJ Pure Water</b> | BWW-30     | Bahawalpur | 20/08/2019         | -              | 0.5 Liter  | Al-Khair Pharmacy Opp.BVH Bahawalpur.                                   | 16 km.HasilPur Road ,Dera Bakha Bahawalpur tajwater pk@gmail.com                                   |
| <b>Aqua Shifa</b>     | BWW-31     | Bahawalpur | 20/08/2019         | 05/2020        | 1.5 Liter  | Collected from manufacturing point                                      | Peragon Ideal Homes Near bypass Bahawalpur.  |
| <b>Ever Drop</b>      | BWW-32     | Karachi    | 22/08/2019         | -              | 0.6 Liter  | General Shop Hussaini Churangi Jamia Masjid F-2, Labour Colony Karachi. | 0332-3619260 0312-2664978  |
| <b>Zindagi Plus</b>   | BWW-33     | Karachi    | 21/08/2019         | -              | 0.6 Liter  | Faris General Store Jinnah Hospital Karachi.                            | Bottled By Soft Technology: Plot No.4-A, 4/19, Nazimabad No.4 Karachi.                             |
| <b>NEO</b>            | BWW-34     | Karachi    | 21/08/2019         | 12/2021        | 0.6 Liter  | Faris General Store Jinnah Hospital Karachi.                            | Plot No.96, Malir Industrial Area Malir, Karachi. 021-35637773                                     |
| <b>Hibba</b>          | BWW-35     | Karachi    | 21/08/2019         |                | 0.6 Liter  | Raheel Qureshi General Store, Near Civil Hospital.                      | Manufactured by: HIBBA Water S.I.T.E Area Karachi. 0315-8561382                                    |



| Brand Name             | PCRWR Code | City    | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper                          | Manufacturer's Address   |
|------------------------|------------|---------|--------------------|----------------|-----------|---|--|
| OYSTER                 | BWW-36     | Karachi | 21/08/2019         | -              | 0.6 Liter | New Quetta Irfan Hotel Civil Hospital Karachi.                | 03302255667<br>03213212085   |
| Water Plus             | BWW-37     | Karachi | 21/08/2019         | 12/2020        | 0.6 Liter | Hassan Pan Shop Jinnah Hospital Karachi.                      | Bottled By: Mega fine industries Plot# A79,Industrial Area Malir Karachi                           |
| Livon                  | BWW-38     | Karachi | 22/08/2019         | -              | 0.6 Liter | Café Noor Main hub Choki Bus Stop Lea market Karachi.         | A Product By: MURTAZA TRADERS: Suite 2, Khizaar Corner, R -143,Z -4,Gulshan - e - Maymar Karachi   |
| EARTH <sub>2</sub> O   | BWW-39     | Karachi | 22/08/2019         | -              | 0.6 Liter | Bilal General Store Main Gate Lyari General Hospital Karachi. | Plot No.151, Block-A, Dhani Bux Broni Goth Scheme-33 Karachi.                                      |
| Vitella                | BWW-40     | Karachi | 22/08/2019         | -              | 0.6 Liter | Usama General Store, 19-B, Shah Bin Qasim Karachi.            | YHY Enterprises: www.vitella.com 021-34314258 0305-2515995   |
| Culligan               | BWW-41     | Karachi | 22/08/2019         | 08/2020        | 0.5 Liter | Sweet and Nimko Bakery Malir North airport Karachi.           | Bottled By: Culligan Water of Pakistan, Johan (Pvt) Ltd.F-17/A, Hub River Road, S.I.T.E Karachi    |
| YES                    | BWW-42     | Karachi | 21/08/2019         | 12/2020        | 0.6 Liter | New MashaAllah Super Store, Rabia City Karachi.               | Mega Fina Industrial Area, Plot No.A-79,Malir Karachi  |
| Water Fall             | BWW-43     | Karachi | 22/08/2019         | -              | 0.6 Liter | Guddu Bhai General Store, Bihar Colony Karachi.               | Mega Food Enterprise SITE, Karachi   |
| Sunlay                 | BWW-44     | Karachi | 21/08/2019         | 06/2020        | 1.5 Liter | Noorani Medicos and Super Store New Civil Hospital Karachi.   | Hani Patel Enterprises: Plot No.60,Sec 51,Super Highway Karachi hanipateleenterprises@gmail.com    |
| MM Pure Drinking Water | BWW-45     | Karachi | 21/08/2019         | -              | 0.6 Liter | Kamran Cold Shop Near Civil Hospital Karachi.                 | Burns Road, Shahr-e-Liaquat, Karachi. 03222702506  |
| PURE 9                 | BWW-46     | Karachi | 21/08/2019         | 12/2020        | 0.6 Liter | Lucky Store and General Shop Opp.Urdu University Karachi.     | Address: Malir Halt, Karachi. info@pure9water.com  |
| MAX Fresh              | BWW-47     | Karachi | 21/08/2019         | 12/2021        | 0.6 Liter | MS. General Store Jinnah Hospital Near NICR Karachi.          | A Product by: MHBS Enterprises R-163/1,Sharifabad,F.B.Area Karachi.                                |
| JEL                    | BWW-48     | Karachi | 21/08/2019         | 12/2020        | 0.6 Liter | Hassan Pan Shop Jinnah Hospital Karachi.                      | Mega fine Industrial Plot No A-79 Industrial Area Malir Karachi.                                   |
| Riva Water             | BWW-49     | Karachi | 21/08/2019         | 12/2020        | 1.5 Liter | Collected from manufacturing point                            | M/s Dow University of health Sciences(D.U.H.S) OJHA Campus, Main Suparco Road,KDA Scheme33,Karachi |
| Aqua Hygienic          | BWW-50     | Quetta  | 21/08/2019         | 12/2020        | 1.5 Liter | Al- Kausar Medical Store, Quetta.                             | Marketed By Zauhras: Plot No.2, Street#12, Faisal Town Brewery Road Quetta.                        |
| AQUAFINA               | BWW-51     | Quetta  | 21/08/2019         | 12/2020        | 1.5 Liter | Sadiq Ali Medical & G.Store M.A Jinnah Road, Quetta.          | Purified and Filled by Pakistan Beverage Ltd.Survey#212,Deh Konkar, District Malir Karachi         |



| Brand Name            | PCRWR Code | City     | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper                          | Manufacturer's Address  |
|-----------------------|------------|----------|--------------------|----------------|-----------|---|---|
| Nurturmil Water       | BWW-52     | Quetta   | 21/08/2019         | 01/2021        | 1.5 Liter | Al- Kausar Medical Store, Quetta.                             | Manufactured by: Mac & Rains Healthcare(Pvt)Ltd.540-D,Sundar industrial Estate, Raiwind Road, Lahore  |
| Aab-e-Haram           | BWW-53     | Quetta   | 21/08/2019         | 12/2021        | 1.5 Liter | Naeem Juice and Ice Cream Jinnah Road Quetta.                 | A Quality Product of ZONE Group Of Pakistan: Head Office New M.A Jinnah Road, Karachi 021-3491695   |
| H <sub>2</sub> OPE    | BWW-54     | Quetta   | 21/08/2019         | 12/2020        | 1.5 Liter | Masha Allah Store Brewery Road, Quetta.                       | Popular Food Industries (Pvt) Ltd.311-313, Chapal Plaza, Off I.I Chundrigar Road, Karachi. <a href="http://www.populargroup.com.pk">www.populargroup.com.pk</a> |
| Dasani                | BWW-55     | Quetta   | 21/08/2019         | 12/2020        | 1.5 Liter | Quetta Medical Saleem Medical Complex M.A Jinnah Road Quetta. | Bottled Under Authority of The Coca Cola Company By Coca-Cola Beverages Pakistan Ltd.(CCBPL)26,FCC, Syed Maratab Ali Road, Gulberg IV, Lahore, Pakistan         |
| Springley             | BWW-56     | Quetta   | 21/08/2019         | 01/2021        | 1.5 Liter | Sadiq Ali Medical & G.Store Jinnah Road, Quetta.              | License no P.S 3733-2016@   |
| 3 Star                | BWW-57     | Quetta   | 21/08/2019         | 01/2021        | 0.6 Liter | JMD General Store Quetta.                                     | 3 Star Premium Drinking water: C M/L-3395/2016 TM:387941  |
| Nestle                | BWW-58     | Quetta   | 21/08/2019         | 12/2020        | 1.5 Liter | Jamil Juice Corner M.A Jinnah Road, Quetta.                   | Bottled By Nestle Pakistan Ltd. 308-Upper Mall, Lahore  |
| Alfalah Mineral Water | BWW-59     | Multan   | 18/09/2019         | 12/2019        | 0.5 Liter | Collected from manufacturing point                            | Bottled at Source in Pakistan Western Fort Commercial Area, Qasim Bela Multan Cantt. <a href="mailto:wateralfalah@gmail.com">wateralfalah@gmail.com</a>         |
| Life Care             | BWW-60     | Multan   | 18/09/2019         | 11/2019        | 0.6 Liter | Collected from manufacturing point                            | Al-Zahoor Traders: Mohalla Noor Pur Near The Oak Avenue Secondary School Mailsi. <a href="mailto:Amirchouhan1644@gmail.com">Amirchouhan1644@gmail.com</a>       |
| FAIHA                 | BWW-61     | Multan   | 18/09/2019         | 01/2020        | 0.6 Liter | Collected from manufacturing point                            | Bottled by FAIHA Enterprises Multan, Green Road Kekar Wala Sujan Pur Multan. <a href="http://www.faiha.com.pk">www.faiha.com.pk</a>                             |
| ZAM                   | BWW-62     | Multan   | 18/09/2019         | 12/2019        | 0.6 Liter | Collected from manufacturing point                            | Bottled By:New MHN Drinks & Food Makers(Pvt)Ltd.129-130,Sabzwari Town Multan, Pakistan  |
| City Spring Water     | BWW-63     | Multan   | 18/09/2019         | -              | 0.5 Liter | Collected from manufacturing point                            | City Industries:Danewal Town, Lahore Road,Vehari. PS:4639/2004  |
| Rocke Water           | BWW-64     | Multan   | 18/09/2019         | 12/2019        | 0.6 Liter | Collected from manufacturing point                            | ROCKE International (Pvt):11-Zakriya Town Phase III Multan.   |
| Aqua Splash           | BWW-65     | Peshawar | 30/09/2019         | 05/2020        | 0.5 Liter | Collected from manufacturing point                            | Euro International: 192-AIndustrial Estate, Hayatabad, Peshawar.  |
| Aqua Dore             | BWW-66     | Peshawar | 30/09/2019         | 07/2020        | 0.5 Liter | Collected from manufacturing point                            | 119-F,Industrial Estate, Hayatabad Peshawar   |



| Brand Name         | PCRWR Code | City      | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper                     | Manufacturer's Address  |
|--------------------|------------|-----------|--------------------|----------------|-----------|--|---|
| Wah Water          | BWW-67     | Peshawar  | 30/09/2019         | 09/2019        | 0.6 Liter | Collected from manufacturing point                       | RG Enterprises: Plot#141, 7-Industrial Estate, Hayatabad, Peshawar. Web:www.aqwah.com   |
| Natural Aqwah      | BWW-68     | Peshawar  | 30/09/2019         | 09/2020        | 0.6 Liter | Collected from manufacturing point                       | RG Enterprises: Plot#141, A-Industrial Estate, Hayatabad, Peshawar. Web:www.aqwah.com   |
| Aqua Pura Smart    | BWW-69     | Peshawar  | 01/10/2019         | 07/2020        | 1.5 Liter | Collected from manufacturing point                       | Khawaja & Sons: Plot no.45-A, Industrial Estate Hayatabad Peshawar.   |
| Moya Mineral Water | BWW-70     | Peshawar  | 01/10/2019         | 10/2020        | 0.6 Liter | Collected from manufacturing point                       | Al-Saudia Enterprises: Plot 580/B Main Gulberg Peshawar Cantt.  |
| Marina             | BWW-71     | Peshawar  | 01/10/2019         | 08/2020        | 0.6 Liter | Collected from manufacturing point                       | Malik Foods Industries: Alwasi City, Ring Road, Pishakhara Peshawar KPK.  |
| BREATHE            | BWW-72     | Peshawar  | 01/10/2019         | 09/2020        | 0.6 Liter | Collected from manufacturing point                       | Gul Brothers: Plot No.120-A,Industrial area Hayatabad, Peshawar   |
| Oxygenated         | BWW-73     | Peshawar  | 30/09/2019         | 06/2020        | 0.6 Liter | Collected from manufacturing point                       | ZMF Beverages:119-F,Industrial Estate, Hayatabad Peshawar   |
| NEBRASKA           | BWW-74     | Peshawar  | 30/09/2019         | 09/2020        | 0.6 Liter | Collected from manufacturing point                       | Bottled at Dew Point Healthcare Water Purification and Processing Facility: 12- C Industrial Estate, Hayatabad, Peshawar.                                       |
| TOP UP             | BWW-75     | Peshawar  | 30/09/2019         | 09/2020        | 0.6 Liter | Collected from manufacturing point                       | Top Up Industry:Plot#C-3, Industrial Estate Hayatabad Peshawar  |
| Aquatic Fresh      | BWW-76     | Peshawar  | 30/09/2019         | 09/2020        | 0.6 Liter | Collected from manufacturing point                       | Royal Food Industries: Plot#1-C, Industrial Estate Hayatabad, Peshawar  |
| MAX 10             | BWW-77     | Peshawar  | 30/09/2019         | 09/2020        | 0.6 Liter | Collected from manufacturing point                       | Safi Beverages:152-A,Industrial Estate Hayatabad Peshawar.  |
| Aquamin            | BWW-78     | Peshawar  | 30/09/2019         | 09/2020        | 0.6 Liter | Collected from manufacturing point                       | Plot No.143,Affridi Marbal Industrial Estate Hayatabad Peshawar   |
| Dasani             | BWW-79     | Tando Jam | 02/10/2019         | -              | 0.6 Liter | Farhan Departmental Store Latifabad unit No.7 Hyderabad  | CCBPL 26FFC,Syed Maratab ali Road, Gulberg IV,Lahore.   |
| H <sub>2</sub> OPE | BWW-80     | Tando Jam | 02/10/2019         | -              | 0.6 Liter | Al-Asif Super Store Naseem Nagar,Qasimabad               | Popular Food Industries (Pvt) Ltd.311-313, Chapal Plaza, Off I.I Chandigarh Road, Karachi. <a href="http://www.populargroup.com.pk">www.populargroup.com.pk</a> |
| Pearl              | BWW-81     | Tando Jam | 02/10/2019         | -              | 0.6 Liter | Wahdat Kiryana General Store, Wahdat Colony, Qasimabad.  | Address: 144/6.8 km, Near Toll Plaza Super Highway Jamshoro. <a href="http://www.prarmineralwater.com.pk">www.prarmineralwater.com.pk</a>                       |
| AQUAFINA           | BWW-82     | Tando Jam | 02/10/2019         | -              | 0.6 Liter | Farhan Departmental Store Latifabad unit No.7 Hyderabad. | M/s Pakistan Beverages Limited.Survey#212, Deh Konkhar, Distt Malir, Karachi.   |
| Buxton             | BWW-83     | Tando Jam | 02/10/2019         | 12/2019        | 0.6 Liter | Aarbish Medical and Super General Store Qasimabad.       | Tahirabad Fareed Plaza Hyderabad  |





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|---------------------|------------|-----------|--------------------|----------------|-----------|--|--|
| Nestle              | BWW-84     | Tando Jam | 02/10/2019         | -              | 0.6 Liter | Farhan Departmental Store Latifabad unit No.7 Hyderabad. | Bottled By Nestle Pakistan Ltd. 308-Upper Mall, Lahore   |
| Vey                 | BWW-85     | Tando Jam | 02/10/2019         | -              | 0.6 Liter | Aarbish Medical and Super General Store Qasimabad.       | Fluid Technology Int'l (Pvt) Ltd.424, Bhayani Center Block-N, North Nazimabad Karachi.   |
| Oslo                | BWW-86     | Tando Jam | 02/10/2019         | -              | 0.6 Liter | Al-Asif Super Store Naseem Nagar,Qasimabad               | Oslo International: 14-Ramzan Chamber Dr.Billmorla Street off 1.1, Chundrigar, Karachi.  |
| Rahat               | BWW-87     | Lahore    | 08/10/2019         | 08/2020        | 0.6 Liter | Collected from manufacturing point                       | Rahat Bakers & Departmental Stores Rahat Market, Aziz Bhatti Shaheed Road, Lahore Cantt.   |
| Jami Water          | BWW-88     | Lahore    | 07/10/2019         | 03/2020        | 0.5 Liter | Collected from manufacturing point                       | A Product of Jami Water Services:356-E PIA Housing Society PIA Road, Lahore www.jamiwater.com  |
| Dasani              | BWW-89     | Lahore    | 08/10/2019         | 08/2020        | 0.5 Liter | Anchor Store Commercial Market Model Town Lahore         | Bottled Under Authority of The Coca Cola Company By coca-cola Beverages Pakistan Ltd.(CCBPL)26,FCC,Syed Maratab Ali Road, Gulberg IV,Lahore,Pakistan     |
| WASSER Sunder Farms | BWW-90     | Lahore    | 09/10/2019         | 08/2020        | 0.6 Liter | Collected from manufacturing point                       | Sundar Farms Rangeel Pur Road Adda Sundar Multan Road Lahore   |
| Nestle              | BWW-91     | Lahore    | 08/10/2019         | 03/2021        | 0.5 Liter | Anchor Store Commercial Market Model Town Lahore         | Bottled By Nestle Pakistan Ltd. 308-Upper Mall, Lahore   |
| Cristalene          | BWW-92     | Lahore    | 08/10/2019         | 03/2020        | 0.6 Liter | Collected from manufacturing point                       | A Product of Cristalene Pak Brothers: 30/A-1 Al-Feroz Plaza Commercial Area Valenica Society Lahore. www.cristalene.com                                  |
| Sufi                | BWW-93     | Lahore    | 08/10/2019         | 08/2021        | 1.5 Liter | Collected from manufacturing point                       | Hadayat Foods Stuff Industries (Pvt) Ltd 1-B Garden Block, Garden Town, Lahore.  |
| AQUAFINA            | BWW-94     | Lahore    | 08/10/2019         | 10/2020        | 0.5 Liter | Anchor Store Commercial Market Model Town Lahore         | Purified & Filled Riaz Bottles (Pvt)Ltd.32-N,Gulberg II Lahore Under appointment from PepsiCo  |
| Aqua One            | BWW-95     | Lahore    | 08/10/2019         | 04/2020        | 1.5 Liter | Collected from manufacturing point                       | Aqua One Filtration (Pvt) Ltd 30-C, Naz Town Main Boulevard Lahore. www.aquaonefiltration.com  |
| Aquintell           | BWW-96     | Lahore    | 07/10/2019         | 09/2020        | 1.5 Liter | Collected from manufacturing point                       | Energique Beverages Pvt Ltd.042-35922223 <a href="mailto:info@sinalco.pk">info@sinalco.pk</a> <a href="http://www.sinalco.com.pk">www.sinalco.com.pk</a> |
| AMFAHH              | BWW-97     | Lahore    | 07/10/2019         | 10/2020        | 1.5 Liter | Collected from manufacturing point                       | Bottled by AMFAHH 541-J,Block Johar Town Lahore  |
| Erie                | BWW-98     | Lahore    | 07/10/2019         | 03/2020        | 1.5 Liter | Collected from manufacturing point                       | A Project of Sagacious (Pvt) Ltd Lahore. 99 CH PGECHS Lahore.  |



| Brand Name  | PCRWR Code | City   | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper | Manufacturer's Address  |
|-------------|------------|--------|--------------------|----------------|-----------|--------------------------------------|---|
| Glacial     | BWW-99     | Lahore | 08/10/2019         | 03/2020        | 1.5 Liter | Collected from manufacturing point   | 358-E, Johar Town, Lahore www.glacial.pk 03424522425                          |
| Klinz Water | BWW-100    | Lahore | 07/10/2019         | +              | 1.5 Liter | Collected from manufacturing point   | Plot#10-A, Punjab Small Industrial Estate Kacha Jail Road Kot- Lakhpat Lahore |
| DOCE        | BWW-101    | Lahore | 07/10/2019         | 10/2020        | 1.5 Liter | Collected from manufacturing point   | 48-M, Quaid-e-Azam Industrial State, Kot Lakhpat, Lahore www.doce.pk          |

## WATER QUALITY PARAMETERS AND METHODS USED FOR ANALYSIS

| Sr. # | PARAMETERS                              | ANALYTICAL METHOD                                       |
|-------|---|---|
| 1.    | Alkalinity (mg/l as CaCO <sub>3</sub> ) | 2320, Standard method (2012) APHA                       |
| 2.    | Arsenic (ppb)                           | AAS Vario 6, Analytik Jena AG                           |
| 3.    | Bicarbonate                             | 2320, Standard method (2012) APHA                       |
| 4.    | Calcium (mg/l)                          | 3500-Ca-D, Standard Method (2012) APHA                  |
| 5.    | Carbonate (mg/l)                        | 2320, Standard method (2012)                            |
| 6.    | Chloride (mg/l)                         | Titration (Silver Nitrate), Standard Method (2012) APHA |
| 7.    | Color (TCU)                             | Sensory Test  |
| 8.    | Conductivity (μS/cm)                    | E.C meter, Hach-44600-00, USA                           |
| 9.    | Hardness (mg/l)                         | EDTA Titration, Standard Method (2012) APHA             |
| 10.   | Magnesium (mg/l)                        | 2340-C, Standard Method (2012) APHA                     |
| 11.   | Nitrate Nitrogen (mg/l)                 | Cd. Reduction (Hach-8171) by Spectrophotometer          |
| 12.   | Odor                                    | Sensory Test  |
| 13.   | pH                                      | pH Meter, Hanna Instrument, Model 8519, Italy           |
| 14.   | Potassium (mg/l)                        | Flame photometer PFP7, UK                               |
| 15.   | Sodium (mg/l)                           | Flame photometer PFP7, UK                               |
| 16.   | Sulfate (mg/l)                          | SulfaVer4 (Hach-8051) by Spectrophotometer              |
| 17.   | Phosphate (mg/l)                        | 8190 and 8048 (Hach)                                    |
| 18.   | Taste                                   | Sensory Test  |



| Sr. # | PARAMETERS                 | ANALYTICAL METHOD  |
|-------|----------------------------|--|
| 19.   | TDS (mg/l)                 | 2540C, Standard method (2012) APHA                                   |
| 20.   | Turbidity (NTU)            | Turbidity Meter, Lamotte, Model 2008, USA                            |
| 21.   | Fluoride (mg/l)            | 4500-F C. ion-Selective Electrode Method Standard method (2005) APHA |
| 22.   | Iron (mg/l)                | FerroVer method (HACH Cat. 21057-69)                                 |
| 23.   | Total Coliforms(MPN/100ml) | 9221-B,C&D, Standard Methods (2012) APHA                             |
| 24.   | E. coli (MPN/100ml)        | 9221-B,C&D, Standard Methods (2012) APHA                             |

### WATER QUALITY PERMISSIBLE LIMITS FOR BOTTLED WATER

| Sr. # | Parameter    | Units         | Permissible Limits |      |                 |
|-------|--------------|---------------|--------------------|------|-----------------|
|       |              |               | WHO                | IBWA | PSQCA           |
| 1.    | Alkalinity   | (mg/l)        | NGVS               | NGVS | NGVS            |
| 2.    | Bicarbonate  | (mg/l)        | NGVS               | NGVS | NGVS            |
| 3.    | Calcium      | (mg/l)        | NGVS               | NGVS | 100             |
| 4.    | Carbonate    | (mg/l)        | NGVS               | NGVS | NGVS            |
| 5.    | Chloride     | (mg/l)        | 250                | 250  | 250             |
| 6.    | Color        | (TCU)         | 15                 | NGVS | 5               |
| 7.    | Conductivity | ( $\mu$ S/cm) | NGVS               | NGVS | NGVS            |
| 8.    | Fluoride     | (mg/l)        | 1.5                | 3    | 0.7             |
| 9.    | Hardness     | (mg/l)        | NGVS               | NGVS | NGVS            |
| 10    | Iron         | (mg/l)        | 0.3                | 0.3  | 0.3             |
| 11.   | Magnesium    | (mg/l)        | NGVS               | NGVS | 50              |
| 12.   | Odor         | -             | Odorless           | NGVS | Unobjectionable |
| 13.   | Nitrate-N    | (mg/l)        | 10                 | 10   | 10              |
| 14.   | pH           | -             | 6.5-8.5            | NGVS | 6.5-8.5         |
| 15.   | Potassium    | (mg/l)        | NGVS               | NGVS | 10              |
| 16.   | Sodium       | (mg/l)        | 200                | NGVS | 50              |
| 17.   | Sulfate      | (mg/l)        | 250                | 250  | 250             |



| Sr. # | Parameter        | Units     | Permissible Limits |      |                 |
|-------|------------------|-----------|--------------------|------|-----------------|
|       |                  |           | WHO                | IBWA | PSQCA           |
| 18.   | Taste            | -         | Un-object.         | NGVS | Unobjectionable |
| 19.   | TDS              | (mg/l)    | 1000               | 500  | 500             |
| 20.   | Turbidity        | (NTU)     | 5                  | NGVS | 0.5             |
| 21.   | Phosphate        | (mg/l)    | NGVS               | NGVS | NGVS            |
| 22.   | Arsenic          | Ppb       | 10                 | 10   | 10              |
| 23.   | Total Coli forms | MPN/100ml | 0                  | 0    | 0               |
| 24.   | E-Coli           | MPN/100ml | 0                  | 0    | 0               |

**WHO** World Health Organization

**IBWA** International Bottled Water Association

**PSQCA** Pakistan Standards and Quality Control Authority



## SUMMARY OF RESULTS OF PCRWR MONITORING

### Contaminants of Potential Concerns Found in Bottled Water Brands

| <b>Sodium: Safe Limit : 50 parts per million (ppm)</b> |                        |        |                       |      |         |
|--|------------------------|--------|-----------------------|------|---------|
| Sr. No   | Brand Name             | Code   | City of Manufacturing | Unit | Results |
| 1.   | TAJ Pure Water         | BWW-30 | Bahawalpur            | ppm  | 60      |
| 2.   | Livon                  | BWW-38 | Karachi               | ppm  | 90      |
| 3.   | Sunlay                 | BWW-44 | Karachi               | ppm  | 60      |
| 4.   | MM Pure Drinking Water | BWW-45 | Karachi               | ppm  | 187     |
| 5.   | Jami Water             | BWW-88 | Lahore                | ppm  | 62      |

| <b>Potassium : Safe Limit : 10 parts per million (ppm)</b> |                |        |                       |      |         |
|--|----------------|--------|-----------------------|------|---------|
| Sr. No   | Brand Name     | Code   | City of Manufacturing | Unit | Results |
| 1.   | TAJ Pure Water | BWW-30 | Bahawalpur            | ppm  | 14      |

| <b>TDS : Safe Limit : 500 parts per million (ppm)</b> |                        |        |                       |      |         |
|---|------------------------|--------|-----------------------|------|---------|
| Sr. No  | Brand Name             | Code   | City of Manufacturing | Unit | Results |
| 1.  | MM Pure Drinking Water | BWW-45 | Karachi               | ppm  | 611     |

| <b>Chloride : Safe Limit : 250 parts per million (ppm)</b> |                        |        |                       |      |         |
|--|------------------------|--------|-----------------------|------|---------|
| Sr. No   | Brand Name             | Code   | City of Manufacturing | Unit | Results |
| 1.   | MM Pure Drinking Water | BWW-45 | Karachi               | ppm  | 336     |

### PCRWR TESTING: SAFE BRANDS

| Sr. No | Brand Name   | Code   | Quality (Safe/Unsafe) |                 |
|--------|--------------|--------|-----------------------|-----------------|
|        |              |        | Chemical              | Microbiological |
| 1.     | Aqua Green   | BWW-01 | Safe                  | Safe            |
| 2.     | Deosai       | BWW-02 | Safe                  | Safe            |
| 3.     | Water Empire | BWW-03 | Safe                  | Safe            |
| 4.     | Pacific Pure | BWW-04 | Safe                  | Safe            |
| 5.     | Seven Stream | BWW-05 | Safe                  | Safe            |
| 6.     | Maple Plus   | BWW-06 | Safe                  | Safe            |
| 7.     | Calci Dew    | BWW-07 | Safe                  | Safe            |
| 8.     | Nectar       | BWW-08 | Safe                  | Safe            |
| 9.     | Softin       | BWW-09 | Safe                  | Safe            |
| 10.    | Fresh Life   | BWW-10 | Safe                  | Safe            |
| 11.    | Nestol       | BWW-11 | Safe                  | Safe            |
| 12.    | Aquantis     | BWW-12 | Safe                  | Safe            |
| 13.    | Sea Pack     | BWW-13 | Safe                  | Safe            |
| 14.    | Springley    | BWW-14 | Safe                  | Safe            |
| 15.    | MUZN         | BWW-15 | Safe                  | Safe            |



| Sr. No | Brand Name            | Code   | Quality (Safe/Unsafe) |                 |
|--------|-----------------------|--------|-----------------------|-----------------|
|        |                       |        | Chemical              | Microbiological |
| 16.    | Breen                 | BWW-16 | Safe                  | Safe            |
| 17.    | MEHR                  | BWW-17 | Safe                  | Safe            |
| 18.    | Elim                  | BWW-18 | Safe                  | Safe            |
| 19.    | Water Plus            | BWW-19 | Safe                  | Safe            |
| 20.    | Venora                | BWW-20 | Safe                  | Safe            |
| 21.    | Piyaas Plus           | BWW-21 | Safe                  | Safe            |
| 22.    | National              | BWW-22 | Safe                  | Safe            |
| 23.    | Gourmet               | BWW-23 | Safe                  | Safe            |
| 24.    | Nestle(Active)        | BWW-24 | Safe                  | Safe            |
| 25.    | AQUAFINA              | BWW-25 | Safe                  | Safe            |
| 26.    | AQUAFINE              | BWW-26 | Safe                  | Safe            |
| 27.    | 7 Smart               | BWW-27 | Safe                  | Safe            |
| 28.    | Victoria              | BWW-28 | Safe                  | Safe            |
| 29.    | Elayn Plus            | BWW-29 | Safe                  | Safe            |
| 30.    | Aqua Shifa            | BWW-31 | Safe                  | Safe            |
| 31.    | Ever Drop             | BWW-32 | Safe                  | Safe            |
| 32.    | Zindagi Plus          | BWW-33 | Safe                  | Safe            |
| 33.    | NEO                   | BWW-34 | Safe                  | Safe            |
| 34.    | Hibba                 | BWW-35 | Safe                  | Safe            |
| 35.    | OYSTER                | BWW-36 | Safe                  | Safe            |
| 36.    | Water Plus            | BWW-37 | Safe                  | Safe            |
| 37.    | EARTH <sub>2</sub> O  | BWW-39 | Safe                  | Safe            |
| 38.    | Vitella               | BWW-40 | Safe                  | Safe            |
| 39.    | Culligan              | BWW-41 | Safe                  | Safe            |
| 40.    | YES                   | BWW-42 | Safe                  | Safe            |
| 41.    | Water Fall            | BWW-43 | Safe                  | Safe            |
| 42.    | PURE 9                | BWW-46 | Safe                  | Safe            |
| 43.    | MAX Fresh             | BWW-47 | Safe                  | Safe            |
| 44.    | JEL                   | BWW-48 | Safe                  | Safe            |
| 45.    | Riva Water            | BWW-49 | Safe                  | Safe            |
| 46.    | Aqua Hygienic         | BWW-50 | Safe                  | Safe            |
| 47.    | AQUAFINA              | BWW-51 | Safe                  | Safe            |
| 48.    | Nurturmil Water       | BWW-52 | Safe                  | Safe            |
| 49.    | Aab-e-Haram           | BWW-53 | Safe                  | Safe            |
| 50.    | H <sub>2</sub> OPE    | BWW-54 | Safe                  | Safe            |
| 51.    | dasani                | BWW-55 | Safe                  | Safe            |
| 52.    | Springley             | BWW-56 | Safe                  | Safe            |
| 53.    | 3 Star                | BWW-57 | Safe                  | Safe            |
| 54.    | Nestle                | BWW-58 | Safe                  | Safe            |
| 55.    | Alfalah Mineral Water | BWW-59 | Safe                  | Safe            |
| 56.    | Life Care             | BWW-60 | Safe                  | Safe            |
| 57.    | FAIHA                 | BWW-61 | Safe                  | Safe            |
| 58.    | ZAM                   | BWW-62 | Safe                  | Safe            |
| 59.    | City Spring Water     | BWW-63 | Safe                  | Safe            |
| 60.    | Rocke Water           | BWW-64 | Safe                  | Safe            |
| 61.    | Aqua Splash           | BWW-65 | Safe                  | Safe            |
| 62.    | Aqua Dore             | BWW-66 | Safe                  | Safe            |
| 63.    | Wah Water             | BWW-67 | Safe                  | Safe            |
| 64.    | Natural Aqwah         | BWW-68 | Safe                  | Safe            |



| Sr. No | Brand Name          | Code    | Quality (Safe/Unsafe) |                 |
|--------|---------------------|---------|-----------------------|-----------------|
|        |                     |         | Chemical              | Microbiological |
| 65.    | Aqua Pura Smart     | BWW-69  | Safe                  | Safe            |
| 66.    | Moya Mineral Water  | BWW-70  | Safe                  | Safe            |
| 67.    | Marina              | BWW-71  | Safe                  | Safe            |
| 68.    | BREATHE             | BWW-72  | Safe                  | Safe            |
| 69.    | Oxygenated          | BWW-73  | Safe                  | Safe            |
| 70.    | NEBRASKA            | BWW-74  | Safe                  | Safe            |
| 71.    | TOP UP              | BWW-75  | Safe                  | Safe            |
| 72.    | Aquatic Fresh       | BWW-76  | Safe                  | Safe            |
| 73.    | MAX 10              | BWW-77  | Safe                  | Safe            |
| 74.    | Aquamin             | BWW-78  | Safe                  | Safe            |
| 75.    | dasani              | BWW-79  | Safe                  | Safe            |
| 76.    | H <sub>2</sub> OPE  | BWW-80  | Safe                  | Safe            |
| 77.    | Pearl               | BWW-81  | Safe                  | Safe            |
| 78.    | AQUAFINA            | BWW-82  | Safe                  | Safe            |
| 79.    | Buxton              | BWW-83  | Safe                  | Safe            |
| 80.    | Nestle              | BWW-84  | Safe                  | Safe            |
| 81.    | Vey                 | BWW-85  | Safe                  | Safe            |
| 82.    | Oslo                | BWW-86  | Safe                  | Safe            |
| 83.    | Rahat               | BWW-87  | Safe                  | Safe            |
| 84.    | Dasani              | BWW-89  | Safe                  | Safe            |
| 85.    | WASSER Sunder Farms | BWW-90  | Safe                  | Safe            |
| 86.    | Nestle              | BWW-91  | Safe                  | Safe            |
| 87.    | Cristalene          | BWW-92  | Safe                  | Safe            |
| 88.    | Sufi                | BWW-93  | Safe                  | Safe            |
| 89.    | AQUAFINA            | BWW-94  | Safe                  | Safe            |
| 90.    | Aqua One            | BWW-95  | Safe                  | Safe            |
| 91.    | Aquintell           | BWW-96  | Safe                  | Safe            |
| 92.    | AMFAHA              | BWW-97  | Safe                  | Safe            |
| 93.    | Erie                | BWW-98  | Safe                  | Safe            |
| 94.    | Glacial             | BWW-99  | Safe                  | Safe            |
| 95.    | Klinz Water         | BWW-100 | Safe                  | Safe            |
| 96.    | DOCE                | BWW-101 | Safe                  | Safe            |

### PCRWR TESTING: UNSAFE BRANDS

| Sr. No | Brand Name             | Code   | Address/Manufacturer  | Quality (Safe/Unsafe) |                 |
|--------|------------------------|--------|---|-----------------------|-----------------|
|        |                        |        |   | Chemical              | Microbiological |
| 1.     | TAJ Pure Water         | BWW-30 | 16 km, Hasil Pur Road ,Dera Bakha Bahawalpur<br>tajwater pk@gmail.com                             | Unsafe                | Safe            |
| 2.     | Livon                  | BWW-38 | A Product By: Murtaza Traders: Suite 2, Khizaar Corner, R -143,Z -4,Gulshan - e - Maymar Karachi  | Unsafe                | Safe            |
| 3.     | Sunlay                 | BWW-44 | Hani Patel Enterprises: Plot No.60,Sec 51,Super Highway Karachi<br>hanipatelenterprises@gmail.com | Unsafe                | Safe            |
| 4.     | MM Pure Drinking Water | BWW-45 | Burns Road, Shahr-e-Liaquat, Karachi.<br>03222702506  | Unsafe                | Safe            |
| 5.     | Jami Water             | BWW-88 | A Product of Jami Water Services:356-E PIA Housing Society PIA Road, Lahore<br>www.jamiwater.com  | Unsafe                | Safe            |



## MARKET CONSISTENCY IN TWO NEIGHBORING QUARTERS

| Sr. No | Consistent Brands   | New Brands             | Unavailable Brands          |
|--------|---------------------|------------------------|-----------------------------|
| 1.     | Maple Plus          | Aqua Green             | Hydr8                       |
| 2.     | Calci Dew           | Deosai                 | Hydra                       |
| 3.     | Nectar              | Water Empire           | Sunlay Pure                 |
| 4.     | Softin              | Pacific Pure           | Fresh Sprinkle              |
| 5.     | Fresh Life          | Seven Stream           | DUA                         |
| 6.     | Nestol              | Springley              | AQUWA Plus                  |
| 7.     | Aquantis            | MUZIN                  | Nicely Pure Zindagi         |
| 8.     | Sea Pack            | Breen                  | Nation Pure Water           |
| 9.     | Mehr                | National               | Eden Pure Water             |
| 10.    | Elim                | AquaFine               | EVO Aqua                    |
| 11.    | Water Plus          | Victoria               | Pani by PFB                 |
| 12.    | Venora              | Elayn Plus             | DEJA Blue                   |
| 13.    | Piyaas Plus         | Ever Drop              | O <sub>2</sub> water        |
| 14.    | Gourmet             | Zindagi Plus           | Heaven H <sub>2</sub> O     |
| 15.    | 7 Smart             | NEO                    | Aqua Safe                   |
| 16.    | TAJ Pure Water      | Hibba                  | PUREFLO                     |
| 17.    | Aqua Shifa          | OYSTER                 | Al-Noor                     |
| 18.    | Aquafina            | Livon                  | Rescue                      |
| 19.    | Aqua Splash         | EARTH <sub>2</sub> O   | ICE Well                    |
| 20.    | Wah Water           | Vitella                | ECO                         |
| 21.    | Natural Aqwah       | Culligan               | Aqua Natural                |
| 22.    | Aqua Pura Smart     | Yes                    | Rise Water                  |
| 23.    | Moya Mineral water  | Water Fall             | Isberg                      |
| 24.    | Marina              | Sunlay                 | Bake Master                 |
| 25.    | NEBARSKA            | MM Pure Drinking Water | OASIS                       |
| 26.    | TOP UP              | PURE 9                 | Aqua Platinum Crystal Water |
| 27.    | Aquatic Fresh       | Max Fresh              | J.Smart Water               |
| 28.    | Dasani              | JEL                    | Pine'o                      |
| 29.    | Pearl               | Riva Water             | Panee                       |
| 30.    | Buxton              | Aqua Hygienic          | RAKA POSHI                  |
| 31.    | Vey                 | Nurturmil water        | Aqualine                    |
| 32.    | Oslo                | Aab-e- Haram           | Super Natural               |
| 33.    | Jami Water          | H <sub>2</sub> OPE     | Classic Plus                |
| 34.    | Cristalene          | 3 Star                 |                             |
| 35.    | Sufi                | Alfalah Mineral Water  |                             |
| 36.    | Aqua One            | Life Care              |                             |
| 37.    | Erie                | FAIHA                  |                             |
| 38.    | Klinz Water         | ZAM                    |                             |
| 39.    | DOCE                | City Spring Water      |                             |
| 40.    | Nestle              | Rocke Water            |                             |
| 41.    | Wasser Sunder Farms | Aqua Dore              |                             |
| 42.    |                     | BREATHE                |                             |
| 43.    |                     | Oxygenated             |                             |
| 44.    |                     | MAX 10                 |                             |
| 45.    |                     | Aquamin                |                             |
| 46.    |                     | Rahat                  |                             |
| 47.    |                     | Aquintell              |                             |
| 48.    |                     | AMFAHA                 |                             |
| 49.    |                     | Glacial                |                             |





### DISEASE POTENTIAL FROM CONTAMINATED BOTTLED WATER

| Sr. No | Contaminant      | Diseases Impacts |
|--------|------------------|------------------|
| 1.     | <b>Sodium</b>    | Hypertension     |
| 2.     | <b>Potassium</b> | Hyperkalium      |

### CONCLUSIONS

| Sr. No | Item  | Conclusion |            |
|--------|---|------------|------------|
|        |   | No.        | % age      |
| 1.     | <b>Total No. of Brands Collected</b>          | <b>101</b> | -          |
| 2.     | <b>Overall Safe Brands</b>                    | <b>96</b>  | <b>95</b>  |
| 3.     | <b>No. of Overall Unsafe Brands</b>           | <b>05</b>  | <b>5</b>   |
| 4.     | <b>No. of Chemically Safe Brands</b>          | <b>96</b>  | <b>95</b>  |
| 5.     | <b>No. of Chemically Unsafe Brands</b>        | <b>05</b>  | <b>5</b>   |
| 6.     | <b>No. of Microbiologically Safe Brands</b>   | <b>101</b> | <b>100</b> |
| 7.     | <b>No. of Microbiologically Unsafe Brands</b> | <b>0</b>   | <b>0</b>   |
| 8.     | <b>No. of Consistent Brands in Market</b>     | <b>41</b>  | <b>40</b>  |
| 9.     | <b>No. of Brands Disappeared/Unavailable</b>  | <b>33</b>  | <b>32</b>  |
| 10.    | <b>No. of New Brands</b>                      | <b>49</b>  | <b>48</b>  |

Detailed water quality status of each bottled water brand is available at **Annexure-1**



Annexure-1

Chemical and Microbiological Quality of Bottled/Mineral Water Brands

| Brand Name                    | Brand Code | Turbidity | pH        | EC    | TDS | Ca  | Mg  | Hard | HCO <sub>3</sub> | Cl  | Na  | F    | Fe   | K   | NO <sub>3</sub> | SO <sub>4</sub> | As   | * Microbiological Contaminants |                |
|-------------------------------|------------|-----------|-----------|-------|-----|-----|-----|------|------------------|-----|-----|------|------|-----|-----------------|-----------------|------|--------------------------------|----------------|
|                               |            |           |           |       |     |     |     |      |                  |     |     |      |      |     |                 |                 |      | Total Coli forms 0/100ml       | E-Coli 0/100ml |
| PSQCA Bottled Water Standards | -          | 0.5       | 6.5 - 8.5 | NGV S | 500 | 100 | 50  | NGVS | NGVS             | 250 | 50  | 0.7  | 0.3  | 10  | 10              | 250             | 10   | -                              | -              |
| Detection Limits              | -          | 0.2       | 0.02      | 0.287 | -   | 2   | 1   | 5    | 5                | 2   | 1   | 0.03 | 0.03 | 0.2 | 0.06            | 0.4             | 0.1  | -                              | -              |
| Units                         | -          | NTU       |           | μS/cm | ppm | ppm | ppm | ppm  | ppm              | ppm | ppm | ppm  | ppm  | ppm | ppm             | ppm             | ppb  | MPN /100ml                     | MPN /100ml     |
| Aqua Green                    | BWW-01     | BDL       | 7.22      | 286   | 157 | 12  | 10  | 70   | 80               | 25  | 36  | 0.23 | BDL  | 0.3 | 1.1             | 27              | BDL  | Negative                       | Negative       |
| Deosai                        | BWW-02     | BDL       | 7.05      | 494   | 272 | 24  | 29  | 180  | 50               | 110 | 30  | 0.20 | BDL  | 0.6 | 1.2             | 34              | BDL  | Negative                       | Negative       |
| Water Empire                  | BWW-03     | BDL       | 7.39      | 132   | 73  | 12  | 5   | 50   | 60               | 6   | 9   | 0.12 | BDL  | 0.6 | BDL             | BDL             | BDL  | Negative                       | Negative       |
| Pacific Pure                  | BWW-04     | BDL       | 7.44      | 400   | 220 | 40  | 12  | 150  | 130              | 32  | 21  | 0.26 | BDL  | 1.2 | 0.7             | 24              | 0.21 | Negative                       | Negative       |
| Nestle                        | BWW-05     | BDL       | 7.85      | 498   | 274 | 40  | 19  | 140  | 180              | 52  | 28  | 0.05 | BDL  | 0.6 | BDL             | 25              | BDL  | Negative                       | Negative       |
| Maple Plus                    | BWW-06     | BDL       | 8.09      | 404   | 222 | 42  | 18  | 180  | 130              | 16  | 10  | 0.03 | BDL  | 1.4 | 1.2             | 45              | BDL  | Negative                       | Negative       |
| Calci Dew                     | BWW-07     | BDL       | 7.00      | 263   | 145 | 20  | 7   | 80   | 60               | 48  | 16  | 0.24 | BDL  | 10  | 0.4             | BDL             | BDL  | Negative                       | Negative       |
| Nectar                        | BWW-08     | BDL       | 7.32      | 373   | 205 | 28  | 22  | 160  | 80               | 55  | 11  | 0.69 | BDL  | 0.9 | BDL             | 27              | BDL  | Negative                       | Negative       |
| Softin                        | BWW-09     | BDL       | 7.47      | 349   | 192 | 20  | 24  | 150  | 110              | 30  | 15  | 0.24 | BDL  | 0.9 | BDL             | 28              | BDL  | Negative                       | Negative       |
| Fresh Life                    | BWW-10     | BDL       | 7.55      | 422   | 232 | 40  | 17  | 170  | 150              | 24  | 18  | 0.36 | BDL  | 1.8 | 1.2             | 22              | BDL  | Negative                       | Negative       |
| Nestol                        | BWW-11     | BDL       | 7.25      | 303   | 167 | 20  | 19  | 130  | 60               | 52  | 9   | 0.22 | BDL  | 0.8 | 0.4             | 15              | 0.22 | Negative                       | Negative       |
| Aquantis                      | BWW-12     | BDL       | 7.42      | 357   | 196 | 40  | 12  | 150  | 60               | 70  | 16  | 0.45 | BDL  | 1.5 | 0.5             | 22              | BDL  | Negative                       | Negative       |
| Sea Pack                      | BWW-13     | BDL       | 7.40      | 504   | 277 | 28  | 24  | 170  | 100              | 65  | 33  | 0.30 | BDL  | 0.5 | 2.6             | 37              | 0.20 | Negative                       | Negative       |
| Springley                     | BWW-14     | BDL       | 7.63      | 505   | 278 | 30  | 26  | 180  | 110              | 70  | 29  | 0.22 | BDL  | 1.3 | 0.5             | 32              | BDL  | Negative                       | Negative       |
| MUZN                          | BWW-15     | BDL       | 7.27      | 294   | 162 | 40  | 7   | 130  | 80               | 30  | 8   | 0.30 | BDL  | 0.6 | 0.5             | 25              | BDL  | Negative                       | Negative       |
| Breen                         | BWW-16     | BDL       | 6.97      | 384   | 211 | 32  | 16  | 145  | 70               | 64  | 24  | 0.30 | BDL  | 0.5 | 2.5             | 26              | BDL  | Negative                       | Negative       |
| MEHR                          | BWW-17     | BDL       | 7.05      | 377   | 207 | 10  | 26  | 130  | 150              | 20  | 30  | 0.23 | BDL  | 1   | 2.5             | 4               | BDL  | Negative                       | Negative       |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Brand Name                           | Brand Code | Turbidity | pH        | EC    | TDS | Ca  | Mg  | Hard | HCO <sub>3</sub> | Cl  | Na | F    | Fe   | K   | NO <sub>3</sub> | SO <sub>4</sub> | As   | * Microbiological Contaminants |                |
|--------------------------------------|------------|-----------|-----------|-------|-----|-----|-----|------|------------------|-----|----|------|------|-----|-----------------|-----------------|------|--------------------------------|----------------|
|                                      |            |           |           |       |     |     |     |      |                  |     |    |      |      |     |                 |                 |      | Total Coli forms 0/100ml       | E-Coli 0/100ml |
| <b>PSQCA Bottled Water Standards</b> | -          | 0.5       | 6.5 - 8.5 | NGV S | 500 | 100 | 50  | NGVS | NGVS             | 250 | 50 | 0.7  | 0.3  | 10  | 10              | 250             | 10   | -                              | -              |
| <b>Detection Limits</b>              | -          | 0.2       | 0.02      | 0.287 | -   | 2   | 1   | 5    | 5                | 2   | 1  | 0.03 | 0.03 | 0.2 | 0.06            | 0.4             | 0.1  | -                              | -              |
| Elim                                 | BWW-18     | BDL       | 7.39      | 266   | 146 | 16  | 15  | 100  | 30               | 48  | 14 | BDL  | BDL  | 2.8 | 2.7             | 22              | BDL  | Negative                       | Negative       |
| Water Plus                           | BWW-19     | BDL       | 7.86      | 305   | 168 | 32  | 11  | 125  | 110              | 12  | 14 | 0.22 | BDL  | 2.5 | 2               | 22              | BDL  | Negative                       | Negative       |
| Venora                               | BWW-20     | BDL       | 7.85      | 295   | 162 | 28  | 12  | 120  | 110              | 12  | 15 | BDL  | BDL  | 1   | 2               | 20              | BDL  | Negative                       | Negative       |
| Piyaas Plus                          | BWW-21     | BDL       | 7.90      | 424   | 233 | 40  | 10  | 140  | 70               | 72  | 30 | 0.10 | BDL  | 0.6 | BDL             | 36              | 0.8  | Negative                       | Negative       |
| National                             | BWW-22     | BDL       | 7.08      | 301   | 166 | 28  | 12  | 120  | 40               | 62  | 15 | 0.26 | BDL  | 0.2 | 0.5             | 20              | 1.01 | Negative                       | Negative       |
| Gourmet                              | BWW-23     | BDL       | 7.28      | 410   | 226 | 28  | 19  | 150  | 60               | 82  | 26 | 0.22 | BDL  | 0.2 | BDL             | 28              | BDL  | Negative                       | Negative       |
| Nestle(Active)                       | BWW-24     | BDL       | 8.10      | 508   | 279 | 28  | 29  | 190  | 120              | 72  | 30 | 0.36 | BDL  | 5.4 | BDL             | 38              | BDL  | Negative                       | Negative       |
| AQUAFINA                             | BWW-25     | BDL       | 7.65      | 209   | 115 | BDL | 15  | 60   | 30               | 24  | 18 | 0.22 | BDL  | 1.1 | BDL             | 34              | BDL  | Negative                       | Negative       |
| AQUAFINE                             | BWW-26     | BDL       | 7.13      | 440   | 242 | 24  | 17  | 130  | 100              | 62  | 40 | 0.21 | BDL  | 3.5 | 4.4             | 18              | 3    | Negative                       | Negative       |
| 7 Smart                              | BWW-27     | BDL       | 7.05      | 332   | 183 | 32  | 9   | 115  | 60               | 74  | 24 | 0.04 | BDL  | 0.7 | BDL             | BDL             | 0.9  | Negative                       | Negative       |
| Victoria                             | BWW-28     | BDL       | 6.80      | 66    | 36  | 4   | 2   | 20   | 22               | 7   | 5  | 0.14 | BDL  | 1.6 | BDL             | BDL             | 0.8  | Negative                       | Negative       |
| Elayn Plus                           | BWW-29     | BDL       | 7.83      | 530   | 292 | 16  | 27  | 150  | 128              | 72  | 49 | 0.34 | BDL  | 1.4 | BDL             | 33              | 1    | Negative                       | Negative       |
| TAJ Pure Water                       | BWW-30     | BDL       | 7.68      | 586   | 322 | 24  | 19  | 140  | 140              | 48  | 60 | 0.24 | BDL  | 14  | BDL             | 78              | BDL  | Negative                       | Negative       |
| Aqua Shifa                           | BWW-31     | BDL       | 7.13      | 303   | 167 | 28  | 15  | 130  | 50               | 61  | 13 | 0.13 | BDL  | 0.2 | BDL             | 22              | 0.9  | Negative                       | Negative       |
| Ever Drop                            | BWW-32     | BDL       | 6.72      | 234   | 129 | 8   | 2   | 30   | 40               | 30  | 37 | 0.34 | BDL  | 2.6 | 2.0             | 22              | BDL  | Negative                       | Negative       |
| Zindagi Plus                         | BWW-33     | BDL       | 7.13      | 274   | 151 | 20  | 9   | 85   | 30               | 48  | 23 | 0.32 | BDL  | 1.1 | BDL             | 34              | 0.2  | Negative                       | Negative       |
| NEO                                  | BWW-34     | BDL       | 7.12      | 227   | 125 | 24  | BDL | 60   | 40               | 34  | 25 | 0.22 | BDL  | 0.2 | 0.4             | 23              | 0.2  | Negative                       | Negative       |
| Hibba                                | BWW-35     | BDL       | 6.52      | 357   | 196 | 21  | 7   | 80   | 55               | 60  | 43 | 0.10 | BDL  | 5.2 | 4.3             | 22              | BDL  | Negative                       | Negative       |
| OYSTER                               | BWW-36     | BDL       | 6.95      | 303   | 167 | 20  | 12  | 100  | 40               | 48  | 25 | 0.23 | BDL  | 0.3 | 1.0             | 42              | 0.3  | Negative                       | Negative       |
| Water Plus                           | BWW-37     | BDL       | 6.90      | 227   | 125 | 20  | 5   | 70   | 50               | 30  | 20 | 0.28 | BDL  | 0.3 | 0.4             | 21              | BDL  | Negative                       | Negative       |
| Livon                                | BWW-38     | BDL       | 7.44      | 591   | 325 | 16  | 15  | 100  | 100              | 115 | 90 | 0.07 | BDL  | 1.4 | 1.1             | 30              | BDL  | Negative                       | Negative       |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Brand Name                           | Brand Code | Turbidity | pH        | EC    | TDS | Ca  | Mg | Hard | HCO <sub>3</sub> | Cl  | Na  | F    | Fe   | K   | NO <sub>3</sub> | SO <sub>4</sub> | As  | * Microbiological Contaminants |                |
|--------------------------------------|------------|-----------|-----------|-------|-----|-----|----|------|------------------|-----|-----|------|------|-----|-----------------|-----------------|-----|--------------------------------|----------------|
|                                      |            |           |           |       |     |     |    |      |                  |     |     |      |      |     |                 |                 |     | Total Coli forms 0/100ml       | E-Coli 0/100ml |
| <b>PSQCA Bottled Water Standards</b> | -          | 0.5       | 6.5 - 8.5 | NGV S | 500 | 100 | 50 | NGVS | NGVS             | 250 | 50  | 0.7  | 0.3  | 10  | 10              | 250             | 10  | -                              | -              |
| <b>Detection Limits</b>              | -          | 0.2       | 0.02      | 0.287 | -   | 2   | 1  | 5    | 5                | 2   | 1   | 0.03 | 0.03 | 0.2 | 0.06            | 0.4             | 0.1 | -                              | -              |
| EARTH <sub>2</sub> O                 | BWW-39     | BDL       | 7.00      | 332   | 183 | 40  | 2  | 110  | 50               | 60  | 25  | 0.21 | BDL  | 3.3 | BDL             | 30              | BDL | Negative                       | Negative       |
| Vitella                              | BWW-40     | BDL       | 7.66      | 328   | 180 | 12  | 10 | 70   | 60               | 55  | 40  | 0.18 | BDL  | 6   | BDL             | 26              | BDL | Negative                       | Negative       |
| Culligan                             | BWW-41     | BDL       | 6.92      | 291   | 160 | 28  | 12 | 120  | 50               | 55  | 11  | 0.07 | BDL  | 7.4 | BDL             | 26              | 0.2 | Negative                       | Negative       |
| YES                                  | BWW-42     | BDL       | 7.20      | 245   | 135 | 16  | 7  | 70   | 40               | 42  | 25  | 0.25 | BDL  | 0.3 | 1.0             | 20              | 0.2 | Negative                       | Negative       |
| Water Fall                           | BWW-43     | BDL       | 6.60      | 412   | 227 | 60  | 5  | 170  | 30               | 120 | 11  | 0.19 | BDL  | 1.4 | BDL             | BDL             | BDL | Negative                       | Negative       |
| Sunlay                               | BWW-44     | BDL       | 7.18      | 428   | 235 | BDL | 22 | 90   | 100              | 64  | 60  | 0.35 | BDL  | 1.9 | BDL             | 34              | BDL | Negative                       | Negative       |
| MM Pure Drinking Water               | BWW-45     | BDL       | 6.81      | 1111  | 611 | 16  | 19 | 120  | 30               | 336 | 187 | 0.27 | BDL  | 6.2 | 2.4             | 27              | BDL | Negative                       | Negative       |
| PURE 9                               | BWW-46     | BDL       | 6.52      | 318   | 175 | 12  | 7  | 60   | 20               | 82  | 47  | 0.25 | BDL  | 0.4 | BDL             | 23              | 0.4 | Negative                       | Negative       |
| MAX Fresh                            | BWW-47     | BDL       | 7.20      | 342   | 188 | 20  | 6  | 75   | 70               | 48  | 43  | 0.47 | BDL  | 2.4 | 1.7             | 25              | BDL | Negative                       | Negative       |
| JEL                                  | BWW-48     | BDL       | 6.70      | 315   | 173 | 20  | 12 | 100  | 35               | 68  | 27  | 0.26 | BDL  | 0.3 | 0.5             | 26              | BDL | Negative                       | Negative       |
| Riva Water                           | BWW-49     | BDL       | 6.96      | 368   | 202 | 28  | 19 | 150  | 50               | 65  | 17  | 0.03 | BDL  | 1.0 | BDL             | 40              | BDL | Negative                       | Negative       |
| Aqua Hygienic                        | BWW-50     | BDL       | 7.18      | 340   | 187 | 16  | 19 | 120  | 40               | 72  | 24  | 0.06 | BDL  | 0.3 | BDL             | 28              | BDL | Negative                       | Negative       |
| AQUAFINA                             | BWW-51     | BDL       | 7.03      | 223   | 123 | BDL | 17 | 70   | 20               | 28  | 17  | 0.06 | BDL  | 1.2 | BDL             | 45              | BDL | Negative                       | Negative       |
| Nurturmil Water                      | BWW-52     | BDL       | 6.89      | 144   | 79  | 16  | 2  | 50   | 30               | 14  | 6   | 0.05 | BDL  | 6.0 | BDL             | 20              | 0.2 | Negative                       | Negative       |
| Aab-e-Haram                          | BWW-53     | BDL       | 7.49      | 775   | 426 | 60  | 36 | 300  | 260              | 40  | 46  | 0.22 | BDL  | 6.0 | BDL             | 90              | BDL | Negative                       | Negative       |
| H <sub>2</sub> OPE                   | BWW-54     | BDL       | 7.08      | 238   | 131 | 24  | 7  | 90   | 25               | 66  | 10  | 0.02 | BDL  | 3.4 | BDL             | BDL             | BDL | Negative                       | Negative       |
| dasani                               | BWW-55     | BDL       | 7.00      | 360   | 198 | BDL | 27 | 110  | 80               | 20  | 30  | 0.40 | BDL  | 0.8 | BDL             | 68              | BDL | Negative                       | Negative       |
| Springley                            | BWW-56     | BDL       | 7.57      | 501   | 276 | 48  | 19 | 200  | 190              | 20  | 24  | 0.24 | BDL  | 1.3 | 2.5             | 22              | BDL | Negative                       | Negative       |
| 3 Star                               | BWW-57     | BDL       | 7.60      | 488   | 268 | 20  | 17 | 120  | 80               | 72  | 50  | 0.13 | BDL  | 2.4 | 1.96            | 57              | BDL | Negative                       | Negative       |
| Nestle                               | BWW-58     | BDL       | 7.83      | 416   | 229 | 40  | 19 | 180  | 50               | 90  | 12  | 0.05 | BDL  | BDL | BDL             | 30              | BDL | Negative                       | Negative       |
| Alfalah Mineral Water                | BWW-59     | BDL       | 7.34      | 365   | 201 | 40  | 12 | 150  | 40               | 52  | 12  | 0.22 | BDL  | 0.5 | BDL             | 60              | BDL | Negative                       | Negative       |
| Life Care                            | BWW-60     | BDL       | 6.90      | 370   | 204 | 28  | 10 | 110  | 60               | 48  | 30  | 0.12 | BDL  | 0.5 | BDL             | 45              | 5   | Negative                       | Negative       |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Brand Name                           | Brand Code | Turbidity | pH        | EC    | TDS | Ca  | Mg | Hard | HCO <sub>3</sub> | Cl  | Na | F    | Fe   | K   | NO <sub>3</sub> | SO <sub>4</sub> | As  | * Microbiological Contaminants |                |
|--------------------------------------|------------|-----------|-----------|-------|-----|-----|----|------|------------------|-----|----|------|------|-----|-----------------|-----------------|-----|--------------------------------|----------------|
|                                      |            |           |           |       |     |     |    |      |                  |     |    |      |      |     |                 |                 |     | Total Coli forms 0/100ml       | E-Coli 0/100ml |
| <b>PSQCA Bottled Water Standards</b> | -          | 0.5       | 6.5 - 8.5 | NGV S | 500 | 100 | 50 | NGVS | NGVS             | 250 | 50 | 0.7  | 0.3  | 10  | 10              | 250             | 10  | -                              | -              |
| <b>Detection Limits</b>              | -          | 0.2       | 0.02      | 0.287 | -   | 2   | 1  | 5    | 5                | 2   | 1  | 0.03 | 0.03 | 0.2 | 0.06            | 0.4             | 0.1 | -                              | -              |
| FAIHA                                | BWW-61     | BDL       | 7.18      | 318   | 175 | 28  | 12 | 120  | 50               | 46  | 16 | 0.14 | BDL  | 0.6 | BDL             | 38              | BDL | Negative                       | Negative       |
| ZAM                                  | BWW-62     | BDL       | 6.52      | 376   | 207 | 20  | 22 | 140  | 50               | 65  | 19 | 0.18 | BDL  | 0.6 | BDL             | 36              | 0.8 | Negative                       | Negative       |
| City Spring Water                    | BWW-63     | BDL       | 7.20      | 381   | 210 | 40  | 7  | 130  | 45               | 67  | 23 | 0.08 | BDL  | 0.4 | BDL             | 40              | 1   | Negative                       | Negative       |
| Rocke Water                          | BWW-64     | BDL       | 6.86      | 382   | 210 | 20  | 22 | 140  | 60               | 44  | 23 | 0.19 | BDL  | 0.6 | BDL             | 62              | BDL | Negative                       | Negative       |
| Aqua Splash                          | BWW-65     | BDL       | 7.05      | 266   | 146 | 32  | 5  | 100  | 30               | 36  | 15 | 0.22 | BDL  | 1.0 | 4.5             | 10              | 0.2 | Negative                       | Negative       |
| Aqua Dore                            | BWW-66     | BDL       | 7.20      | 330   | 182 | 32  | 15 | 140  | 50               | 60  | 10 | 0.19 | BDL  | 0.7 | 1.1             | 23              | BDL | Negative                       | Negative       |
| Wah Water                            | BWW-67     | BDL       | 7.72      | 318   | 175 | 28  | 15 | 130  | 100              | 18  | 15 | 0.70 | BDL  | 1.6 | 4.3             | 25              | BDL | Negative                       | Negative       |
| Natural Aqwah                        | BWW-68     | BDL       | 7.76      | 332   | 183 | 20  | 19 | 130  | 100              | 18  | 15 | 0.50 | BDL  | 1.5 | 4.6             | 22              | 0.2 | Negative                       | Negative       |
| Aqua Pura Smart                      | BWW-69     | BDL       | 7.03      | 427   | 235 | 40  | 19 | 180  | 50               | 90  | 14 | 0.00 | BDL  | 0.4 | 0.5             | 35              | 0.2 | Negative                       | Negative       |
| Moya Mineral Water                   | BWW-70     | BDL       | 7.18      | 331   | 182 | 28  | 15 | 130  | 120              | 20  | 15 | 0.23 | BDL  | 1.5 | 4.6             | 0.1             | 0.2 | Negative                       | Negative       |
| Marina                               | BWW-71     | BDL       | 8.03      | 414   | 228 | 40  | 19 | 180  | 170              | 12  | 16 | 0.23 | BDL  | 1.7 | 4.1             | 19              | 0.2 | Negative                       | Negative       |
| BREATHE                              | BWW-72     | BDL       | 7.36      | 393   | 216 | 40  | 15 | 160  | 60               | 72  | 14 | BDL  | BDL  | 0.6 | 0.8             | 30              | BDL | Negative                       | Negative       |
| Oxygenated                           | BWW-73     | BDL       | 7.75      | 375   | 206 | 32  | 17 | 150  | 90               | 36  | 17 | 0.28 | BDL  | 1.0 | 5.1             | 26              | 0.2 | Negative                       | Negative       |
| NEBRASKA                             | BWW-74     | BDL       | 7.49      | 425   | 234 | 40  | 17 | 170  | 50               | 72  | 15 | BDL  | BDL  | 0.2 | 0.5             | 46              | BDL | Negative                       | Negative       |
| TOP UP                               | BWW-75     | BDL       | 7.60      | 504   | 277 | 40  | 19 | 180  | 80               | 74  | 32 | BDL  | BDL  | 0.5 | 0.5             | 62              | BDL | Negative                       | Negative       |
| Aquatic Fresh                        | BWW-76     | BDL       | 7.85      | 456   | 251 | 40  | 19 | 180  | 130              | 26  | 20 | 0.24 | BDL  | 2.0 | 6.2             | 34              | BDL | Negative                       | Negative       |
| MAX 10                               | BWW-77     | BDL       | 7.32      | 426   | 234 | 40  | 15 | 160  | 90               | 53  | 24 | 0.22 | BDL  | 0.4 | 1.4             | 38              | 0.2 | Negative                       | Negative       |
| Aquamint                             | BWW-78     | BDL       | 7.13      | 337   | 185 | 28  | 12 | 120  | 60               | 48  | 22 | 0.11 | BDL  | 0.8 | 1.9             | 32              | 0.2 | Negative                       | Negative       |
| dasani                               | BWW-79     | BDL       | 7.08      | 237   | 130 | BDL | 24 | 100  | 30               | BDL | 6  | BDL  | BDL  | 1.3 | BDL             | 80              | BDL | Negative                       | Negative       |
| H <sub>2</sub> OPE                   | BWW-80     | BDL       | 7.36      | 238   | 131 | 20  | 5  | 70   | 30               | 48  | 15 | BDL  | BDL  | 5.0 | BDL             | 10              | BDL | Negative                       | Negative       |
| Pearl                                | BWW-81     | BDL       | 7.45      | 295   | 162 | 28  | 12 | 120  | 35               | 48  | 10 | 0.04 | BDL  | 3.1 | 0.2             | 35              | 0.2 | Negative                       | Negative       |
| AQUAFINA                             | BWW-82     | BDL       | 7.03      | 230   | 127 | BDL | 19 | 80   | 30               | 24  | 17 | BDL  | BDL  | 2.1 | BDL             | 53              | BDL | Negative                       | Negative       |
| Buxton                               | BWW-83     | BDL       | 7.66      | 634   | 349 | 44  | 17 | 180  | 50               | 60  | 50 | 0.10 | BDL  | 3.3 | 1.7             | 148             | BDL | Negative                       | Negative       |
| Nestle                               | BWW-84     | BDL       | 7.56      | 400   | 220 | 40  | 17 | 170  | 40               | 80  | 12 | 0.12 | BDL  | 1.1 | BDL             | 40              | BDL | Negative                       | Negative       |
| Vey                                  | BWW-85     | BDL       | 7.10      | 314   | 173 | 12  | 17 | 100  | 50               | 51  | 22 | 0.14 | BDL  | 7.5 | 0.2             | 34              | BDL | Negative                       | Negative       |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Brand Name                           | Brand Code | Turbidity | pH        | EC    | TDS | Ca  | Mg | Hard | HCO <sub>3</sub> | Cl  | Na | F    | Fe   | K   | NO <sub>3</sub> | SO <sub>4</sub> | As   | * Microbiological Contaminants |                |
|--------------------------------------|------------|-----------|-----------|-------|-----|-----|----|------|------------------|-----|----|------|------|-----|-----------------|-----------------|------|--------------------------------|----------------|
|                                      |            |           |           |       |     |     |    |      |                  |     |    |      |      |     |                 |                 |      | Total Coli forms 0/100ml       | E-Coli 0/100ml |
| <b>PSQCA Bottled Water Standards</b> | -          | 0.5       | 6.5 - 8.5 | NGV S | 500 | 100 | 50 | NGVS | NGVS             | 250 | 50 | 0.7  | 0.3  | 10  | 10              | 250             | 10   | -                              | -              |
| <b>Detection Limits</b>              | -          | 0.2       | 0.02      | 0.287 | -   | 2   | 1  | 5    | 5                | 2   | 1  | 0.03 | 0.03 | 0.2 | 0.06            | 0.4             | 0.1  | -                              | -              |
| Oslo                                 | BWW-86     | BDL       | 7.62      | 418   | 230 | 28  | 12 | 120  | 60               | 72  | 39 | BDL  | BDL  | 3.7 | 0.5             | 40              | BDL  | Negative                       | Negative       |
| Rahat                                | BWW-87     | BDL       | 7.48      | 407   | 224 | 32  | 11 | 125  | 60               | 60  | 29 | 0.03 | BDL  | 0.6 | BDL             | 46              | 0.5  | Negative                       | Negative       |
| Jami Water                           | BWW-88     | BDL       | 7.65      | 390   | 215 | 12  | 5  | 50   | 120              | 48  | 62 | BDL  | BDL  | 0.8 | 2.2             | 0               | 0.8  | Negative                       | Negative       |
| Dasani                               | BWW-89     | BDL       | 7.32      | 332   | 183 | 0   | 29 | 120  | 50               | 7   | 20 | BDL  | BDL  | 0.4 | 1.2             | 104             | BDL  | Negative                       | Negative       |
| WASSER Sunder Farms                  | BWW-90     | BDL       | 7.08      | 394   | 217 | 40  | 7  | 130  | 40               | 90  | 29 | BDL  | BDL  | 0.4 | BDL             | 20              | 5.2  | Negative                       | Negative       |
| Nestle                               | BWW-91     | BDL       | 7.09      | 456   | 251 | 48  | 16 | 185  | 60               | 88  | 19 | BDL  | BDL  | 0.4 | BDL             | 40              | BDL  | Negative                       | Negative       |
| Cristalene                           | BWW-92     | BDL       | 6.69      | 284   | 156 | 32  | 11 | 125  | 30               | 70  | 6  | 0.03 | BDL  | 0.2 | BDL             | 10              | 0.9  | Negative                       | Negative       |
| Sufi                                 | BWW-93     | BDL       | 7.56      | 372   | 205 | 40  | 12 | 150  | 50               | 72  | 17 | 0.09 | BDL  | 0.4 | BDL             | 32              | 0.8  | Negative                       | Negative       |
| AQUAFINA                             | BWW-94     | BDL       | 7.05      | 220   | 121 | 0   | 17 | 70   | 15               | 21  | 16 | BDL  | BDL  | 1.3 | BDL             | 60              | BDL  | Negative                       | Negative       |
| Aqua One                             | BWW-95     | BDL       | 7.70      | 327   | 180 | 20  | 12 | 100  | 70               | 42  | 28 | BDL  | BDL  | 0.2 | BDL             | 30              | 0.81 | Negative                       | Negative       |
| Aquintell                            | BWW-96     | BDL       | 7.20      | 295   | 162 | 16  | 15 | 100  | 50               | 42  | 22 | BDL  | BDL  | 0.5 | BDL             | 38              | 1.2  | Negative                       | Negative       |
| AMFAHA                               | BWW-97     | BDL       | 7.12      | 300   | 165 | 7   | 27 | 130  | 30               | 66  | 10 | BDL  | BDL  | 0.2 | BDL             | 26              | 2    | Negative                       | Negative       |
| Erie                                 | BWW-98     | BDL       | 7.26      | 345   | 190 | 36  | 12 | 140  | 50               | 67  | 17 | 0.30 | BDL  | 0.3 | BDL             | 32              | 0.9  | Negative                       | Negative       |
| Glacial                              | BWW-99     | BDL       | 6.80      | 308   | 169 | 28  | 12 | 120  | 40               | 60  | 15 | 0.40 | BDL  | 0.3 | BDL             | 24              | 0.8  | Negative                       | Negative       |
| Klinz Water                          | BWW-100    | BDL       | 7.57      | 450   | 248 | 40  | 19 | 180  | 40               | 90  | 15 | 0.09 | BDL  | 0.5 | BDL             | 40              | 0.9  | Negative                       | Negative       |
| DOCE                                 | BWW-101    | BDL       | 6.72      | 323   | 178 | 24  | 10 | 100  | 60               | 50  | 27 | 0.50 | BDL  | 0.5 | BDL             | 26              | 1.2  | Negative                       | Negative       |