



# QUARTERLY REPORT BOTTLED WATER QUALITY

(October-December, 2016)



**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)

October-December, 2016



## 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 October-December, 2016 following is the brief overview of the findings.

### Quarterly Monitoring of Bottled/Mineral Water (October-December, 2016)

Item	No.	% age
<b>Total No. of Brands Collected</b>	<b>78</b>	<b>-</b>
<b>Overall Safe Brands</b>	<b>67</b>	<b>86</b>
<b>Overall Unsafe Brands</b>	<b>11</b>	<b>14</b>
<b>Chemically Safe Brands</b>	<b>68</b>	<b>87</b>
<b>Chemically Unsafe Brands</b>	<b>10</b>	<b>13</b>
<b>Microbiologically Safe Brands</b>	<b>77</b>	<b>99</b>
<b>Microbiologically Unsafe Brands</b>	<b>01</b>	<b>01</b>

Name of Targeted Cities	Islamabad, Rawalpindi, Sialkot, Quetta, Peshawar, Muzaffarabad Faisalabad, Sargodha, Multan, Lahore, Tando Jam	
<b>Chemically Unsafe Brands</b>	<b>Brand Name</b>	<b>Manufacturer(s)</b>
	Well Care	Manufactured by: Well Care International (Pvt.) Ltd. Khanewal Road, Multan. wellcare1222@gmail.com
	Lite Aqua	Lite Aqua INTR: Bahawalpur Road, Multan.
	New Premier	Zafir Industries: 19-KM, Near Highnoon Laboratories, Multan Road, Lahore.
	Royal Blue	IRIS Foods (Pvt) Ltd. 484-A, Tajpura LDA Scheme Lahore
	Aqua Safe	Bottled by: Aqua Safe Pakistan (Pvt) Ltd, 96-McLeod Road, Lahore, Pakistan. 042-37222335
	Aqua Drink Water	A Product of A.A Trader, Head Office: 27 M. Ali Road, Liaqtabad, Lahore.
	Rahat	Rahat Bakers & Department Stores, Rahat Market, Aziz Bhatti Shaheed Road, Lahore Cantt . 042-36671412
	Oslo	Oslo International: 14-Ramzan Chamber, Dr. Billmorria Street # off 1.1 Chandigarh Road, Karachi.
	NG Fresh Water	Nadir Hasan: Hyderabad, Pakistan. 0313-2105390 jam_nasir11@yahoo.com
	Nurturmil Water	Manufactured by Searle IV Solutions (Pvt) Ltd. 1.5 KM Manga Raiwind Road, Manga Mandi, Distt. Lahore.
<b>Microbiologically Unsafe Brands</b>	Aab-e-Khoob	Aab-e-Khoob, Plot # 9-17-B 1, College Road, Near Akbar Chawk, Township, Lahore. 042-35214240



## 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>	78	
<b>No. of Cities Targeted</b>	11 (Islamabad, Rawalpindi, Sialkot, Quetta, Peshawar, Muzaffarabad Faisalabad, Sargodha, Multan, Lahore, Tandojam)	
<b>Composition of Sampling Team</b>	One Research Officer and Two Laboratory Assistants	
<b>Sampling Procedure</b>	Samples of 78 commercially available brands of mineral/bottled water were collected from local market of 11 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 October-December, 2016. 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	Handed over to shopkeeper at the time of sample collection;
	Sample No. 2	Preserved in the National Water Quality Laboratory of PCRWR, Islamabad for future record.
	Sample No. 3	Used for Microbiological Analysis
	Sample No. 4	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 Fina</b>	BWL-01	Faisalabad	17/10/2016	-	0.5 Liter	Ali Pan Shop GTS, Faisalabad	Filled by Haidri Beverages Private Limited, CDA Industrial Triangle, Kahuta Road, Islamabad. Under Appointment from Pepsi Co.
<b>Infinity</b>	BWL-02	Faisalabad	17/10/2016	-	0.6 Liter	Tanveer Store, Makuana, Faisalabad	Musaffa drops (Pvt) Ltd. Japan Road, Sihala Khurd Islamabad 051-4486631
<b>Rachna</b>	BWL-03	Faisalabad	17/10/2016	-	0.5 Liter	Tanveer Store, Makuana, Faisalabad	Site Office: Ghazi Town Jaranwala rachnapurewater@gmail.com
<b>Elixer</b>	BWL-04	Faisalabad	17/10/2016	07/2017	0.6 Liter	Umer Pan Shop Main Jaranwala Road, Faisalabad	Bottled by: Hussain Enterprises, 326-Eden Centre, Jail Road, Lahore
<b>Aquwa Plus</b>	BWL-05	Faisalabad	17/10/2016	-	0.6 Liter	Bao Ji Pan Shop 0321-8664482	Manufactured By: A.R Traders, Gojra, Pakistan Email:-aquwaplus@yahoo.com
<b>Murree Sparkletts</b>	BWL-06	Sargodha	13/10/2016	09/2017	0.5 Liter	Aziz & Son Satellite Town Chowk, Sargodha	Murree Sparkletts (A division of Murree Brewery Co. Ltd), Plot No.10/2, Phase-III Industrial Estate, Hatter.
<b>Blu Water</b>	BWL-07	Sargodha	13/10/2016	09/2017	0.6 Liter	Naseer Ahmed Railway Station Sargodha	Al-Hilal Industries(Pvt)Ltd.Sultan Nagar,Vehari Road Multan
<b>Oxen</b>	BWL-08	Sargodha	13/10/2016	09/2017	0.6 Liter	47-Adda Wagon Adda Sargodha	Bottled by: Pure it Pk, Jaffar town Lahore. A Quality Brand of Oxen Corporation www.oxen.biz
<b>Ziran</b>	BWL-09	Sargodha	13/10/2016	-	0.5 Liter	M. Waqas Railway Station Sargodha	Ziran Water (Pvt) Ltd. Office#64, A-Block Model Town Lahore Ziran Water (Pvt) Ltd. www.ziranwater.com.pk
<b>Hi-Fresh</b>	BWL-10	Sargodha	13/10/2016	-	0.6 Liter	M. Riaz General Bus Stand, Sargodha 0345-7747249	Product of NBFC Pakistan Madina Farm, 84-N.B Sargodha. www.hi_freshwater.com
<b>ECO</b>	BWL-11	Sialkot	03/10/2016	-	0.6 Liter	Collected from manufacturing point	Product of J&J Foods & Beverages: Roras Road Naul Chowk, Sialkot Pakistan www.jjfoods.bev.com
<b>Aqua Save</b>	BWL-12	Sialkot	04/10/2016	-	0.5 Liter	Collected from manufacturing point	Bottled By: SFS Mineral Water Company Wazirabad Road Jalianwala Ugoki Sialkot mineralwatercompany@yahoo.com
<b>Isberg</b>	BWL-13	Sialkot	30/09/2016	08/2017	0.6 Liter	Collected from manufacturing point	Premier Water Refining Company, Dhabola, Roras Road, Sialkot info@pwrc.com.pk
<b>Rise Water</b>	BWL-14	Sialkot	30/09/2016	09/2017	0.6 Liter	Collected from manufacturing point	Pure Foods Sialkot 3-km Kingra Road Sialkot 052-4602580
<b>Coral Water</b>	BWL-15	Sialkot	04/10/2016	08/2017	0.6 Liter	Collected from manufacturing point	Bottled By: Combine Brothers Traders Adda Khrana Sialkot www.coralwater.com.pk 0333-8606644
<b>Vina Fresh</b>	BWL-16	Sialkot	30/09/2016	09/2017	0.6 Liter	Collected from manufacturing point	Al-Sultan Beverages industries: Chaprar Road Gul Bahar Kalan Sialkot



Brand Name	PCRWR Code	City	Date of Collection	Date of Expiry	Size	Name & Address of Seller/Shop Keeper	Manufacturer's Address
Bake Master	BWL-17	Sialkot	04/10/2016	09/2017	0.5 Liter	Bake Master Bakery, Shahab Pura Road, Sialkot	0342-6661666 0333-8656666
Al-Haider	BWL-18	Sialkot	04/10/2016	03/2017	0.5 Liter	Bismillah Haider Pan Shop, Sialkot 0331-6108658	Al-Haider Pure, A Purified Water with essential Minerals Gulshan Iqbal Park China Chowk Sialkot
ICE Well	BWL-19	Sialkot	04/10/2016	10/2017	0.5 Liter	Imam Pak Pan Shop, Shahab Pura Road, Sialkot 0321-6166735	Bottled by: Quaint Beverages Industries Baghwal Awan, P.O. Khas Sialkot E-mail quaint.beverages@att net
Athar	BWL-20	Sialkot	04/10/2017	09/2017	0.5 Liter	Collected from manufacturing point	Manufactured By Ajva Rice Mill Pakistan Haji Pura Road Sialkot E-mail: Ajva Rice@gmail.com.
Fresh Life	BWL-21	Islamabad	01/12/2016	10/2017	0.5 Liter	Collected from manufacturing point	T&S Enterprises office No.1 Main Hall Roadm Pindori Road, Main Khana Dak, Islamabad freshlife786@gmail.com
Atlantic	BWL-22	Islamabad	01/12/2016	10/2017	1.5 Liter	Collected from manufacturing point	Ayza Society, Near Yamaha Factory, Sihala Industrial Area, Islamabad
Mehr	BWL-23	Rawalpindi	02/12/2016	12/2017	0.5 Liter	Collected from manufacturing point	Bottled By: Pir MEHR Ali Shah Arid Agriculture University Rawalpindi
White Gold	BWL-24	Islamabad	02/12/2016	06/2017	0.6 Liter	Collected from manufacturing point	Global Enterprises: Office 9, 2 <sup>nd</sup> Floor, Lord Trade Centre, F-11 Markaz, Islamabad
Hydr8	BWL-25	Islamabad	02/12/2016	08/2017	0.5 Liter	Collected from manufacturing point	T-7, Sardar Arcade 2, G-11 Markaz, Islamabad
Ripple	BWL-26	Rawalpindi	07/12/2016	08/2017	1.5 Liter	Collected from manufacturing point	Main Mirpur Road, Al-Noor Colony Sector # 3, Corner of St. No.6, Behind Fazaia Colony, Rawalpindi
Hydra	BWL-27	Islamabad	07/12/2016	09/2017	1.5 Liter	Collected from manufacturing point	Bottled By: Pakistan PVC Limited (Food Division), 31-A, Sector I-9, Islamabad.
Sunley Pure	BWL-28	Islamabad	07/12/2016	09/2017	1.5 Liter	Collected from manufacturing point	Bottled By: Pakistan PVC Limited (Food Division), 31-A, Sector I-9, Islamabad
Verbena	BWL-29	Islamabad	07/12/2016	06/2017	0.6 Liter	Collected from manufacturing point	Vizor Pharma Pvt. (Ltd), Lalazar Estate, Rawalpindi. vizorpharma@hotmail.com
Oxygen +	BWL-30	Islamabad	07/12/2016	08/2017	1.5 Liter	Collected from manufacturing point	Reg. Trademark of Care Enterprises, Plot # 86, St#10, Sector I-9/2, Islamabad.
Deep Spring	BWL-31	Islamabad	07/12/2016	09/2017	1.5 Liter	Collected from manufacturing point	A Product of BNK(Pvt) Ltd. Plot No.226, St#7, Sector I-9/2, Islamabad
Nectar	BWL-32	Islamabad	07/12/2016	09/2017	0.6 Liter	Collected from manufacturing point	Islamabad Express, Near Paradise Complex, Kurri Road, Islamabad
Valley	BWL-33	Islamabad	07/12/2016	06/2017	0.6 Liter	Collected from manufacturing point	Plot # 277, St.1, I-9/3, Industrial Area, Islamabad
Aqua Hygienic	BWL-34	Quetta	14/12/2016	-	0.6 Liter	Iqbal Medical Store, Jinnah Road, Quetta	Marketed by Zauhars: Plot # 12, Faisal Town, Brewery Road, Quetta
Aqua Filter King	BWL-35	Quetta	14/12/2016	12/2018	0.6 Liter	Iqbal Enterprises Store, Jinnah Road Quetta	J.S. Enterprises, Essa Khan Road, Sirki Road, Quetta



Brand Name	PCRWR Code	City	Date of Collection	Date of Expiry	Size	Name & Address of Seller/Shop Keeper	Manufacturer's Address
Zam	BWL-36	Multan	29/11/2016	-	0.6 Liter	Fatima Drink Corner, Nishtar Road, Multan	Bottled By: New MHN Drinks & Foods Makers (Pvt) Ltd. 129/130 Sabzwari Town, Multan E-mail: mhn drinks@gmail.com
Vital Happy Life	BWL-37	Multan	28/11/2016	-	0.6 Liter	Mushtaq Drink Corner, Vehari Chowk, Multan	Lala Traders: Consumer Products, 7 km Multan Road, Sahiwal.
Well Care	BWL-38	Multan	28/11/2016	-	0.6 Liter	Nasir Hameed Drink Corner, General Bus Stand, Multan	Manufactured by: Well care International (Pvt.) Ltd Khanewal Road Multan wellcare1222@gmail.com
Lite Aqua	BWL-39	Multan	29/11/2016	03/2017	1.5 Liter	Azeem Medicine, Nishtar Road, Multan	Lite Aqua INTR: Bahawalpur Road, Multan
New Aqua Care	BWL-40	Multan	29/11/2016	-	0.6 Liter	Paramount General Store, Dera Adda Chowk, Multan	Aqua Care Drinking Water D.G. Khan, Pakistan 0331-7402128
Pure Fresh Water	BWL-41	Multan	28/11/2016	-	0.6 Liter	Ali Bilal Drink Corner, Vehari Chowk, Multan	NLC Bypass, Main Khanewal Road, Multan Email: freshwater.pt@gmail.com
Noble	BWL-42	Tandojam	01/12/2016	12/2017	0.6 Liter	Collected from manufacturing point	Bottled by: Pak National Co. Lahore Tower Market, Hakeem Habib Road, Hyderabad.
Crystal Spring	BWL-43	Tandojam	01/12/2016	-	0.6 Liter	Collected from manufacturing point	Plot#28 Phase-II, Qasimabad, Hyderabad www.crystalspringspk
NG Fresh Water	BWL-44	Tandojam	01/12/2016	12/2017	0.6 Liter	Naka Stop, Tando Qaisar Road, Tandojam	Nadir Hasan, Hyderabad, Pakistan 0313-2105390 jam_nasir11@yahoo.com
Oslo	BWL-45	Tandojam	01/12/2016	12/2017	0.6 Liter	Naka Stop, Tando Qaisar Road, Tandojam	Oslo International: 14-Ramzan Chamber Dr. Billmorria Street # off 1.1 Chandigarh Road, Karachi
Naseeb	BWL-46	Tandojam	01/12/2016	-	1.5 Liter	Naka Stop Tando Qaisar Road, Tandojam	Maaz Beverages, Pakistani Company
Yas	BWL-47	Muzaffarabad	10/12/2016	-	0.6 Liter	Collected from manufacturing point	Kashmir Natural Resources (Pvt) Ltd., Muzaffarabad yas@neelum.pk
New Premier	BWL-48	Lahore	08/12/2016	-	0.6 Liter	Zam Zam Cafeteria, Jinnah Hospital, Lahore.	Zafir Industries: 19-KM Near Highnoon Laboratories, Multan Road, Lahore
Sufi water	BWL-49	Lahore	08/12/2016	12/2017	0.5 Liter	Green Pharmacy Jinnah Hospital, Lahore.	Hadayat Foods Stuff's Industries (Pvt) Ltd., 1-B Garden Block, Garden Town, Lahore
Nurturmil Water	BWL-50	Lahore	08/12/2016	-	0.5 Liter	Green Pharmacy, Jinnah Hospital, Lahore.	Manufactured By Searle IV Solutions (Pvt) Ltd. 1.5-KM Manga Raiwind Road, Manga Mandi, Distt. Lahore.
Bliss Water	BWL-51	Lahore	08/12/2016	06/2017	1.5 Liter	Collected from manufacturing point	Sourced and Bottled at 4 Country Road, Opposite Jinnah Hospital, Lahore
Royal Blue	BWL-52	Lahore	08/12/2016	-	0.5 Liter	New Hassan Pharmacy Ganga Ram Hospital, Lahore.	IRIS Foods (Pvt) Ltd. 484-A, Tajpura LDA Scheme, Lahore
Dewan Water Express	BWL-53	Lahore	08/12/2016	10/2017	0.5 Liter	Ahmad Pharmacy, Ganga Ram Hospital, Lahore.	Bottled By: Dewan Foods: 168, Shah Jamal, Lahore www.dewanfoods.com



Brand Name	PCRWR Code	City	Date of Collection	Date of Expiry	Size	Name & Address of Seller/Shop Keeper	Manufacturer's Address
Aqua Safe	BWL-54	Lahore	08/12/2016	10/2017	0.6 Liter	Ahmad Pharmacy Ganga Ram Hospital, Lahore.	Bottled by: Aqua Safe Pakistan (Pvt) Ltd, 96-Mcleod Road, Lahore, Pakistan 042-37222335
Naimat	BWL-55	Lahore	08/12/2016	-	0.6 Liter	New Fatima Jinnah Medical Store Ganga Ram Hospital, Lahore.	A produced By Water World Boby Plaza: Opp Govt. Munshi Hospital, Ring Road, Lahore. 042-37150190 www.waterworld.com.pk
Aab-e-Rahat	BWL-56	Lahore	08/12/2016	-	0.6 Liter	AK Pharma Plus, Ganga Ram Hospital, Lahore.	220-A, Ferozapur Road, Lahore Pakistan 042-7530111
Aqua Drink Water	BWL-57	Lahore	08/12/2016	-	0.5 Liter	AK Pharma Plus, Ganga Ram Hospital, Lahore.	A Product of A.A. Traders, Head Office: 27 M.Ali Road, Liaqtabad, Lahore.
Aqua Pro	BWL-58	Lahore	08/12/2016	-	0.5 Liter	Mehr Hamza Pan Shop, Bata Pur, Jallo Mor, Lahore	AQUA PRO Beverages, A project of Rizwan and Company 38-Rahat Park, Samnabad, Lahore 0300-4634370
Nestle	BWL-59	Lahore	08/12/2016	08/2017	0.5 Liter	Rahat Bakers & Departmental Store, Harbanspura Mor, Lahore	Bottled by Nestle Pakistan Ltd., 308-Upper Mall Lahore Pakistan
Rahat	BWL-60	Lahore	08/12/2016	09/2017	0.5 Liter	Collected from manufacturing point	Rahat Bakers & Departmental Stores, Rahat Market, Aziz Bhatti Shaheed Road, Lahore Cantt. 042-36671412
Kinley	BWL-61	Lahore	09/12/2016	-	0.5 Liter	Cakes & Bakers, Lajna, College Road, Lahore	Coca-Cola Beverages Pakistan Ltd. 5-E Gulberg, Lahore.
Bling H <sub>2</sub> O	BWL-62	Lahore	08/12/2016	-	0.5 Liter	Bismillah Pan Shop, Jallo Mor, Lahore	A product of 3-N Foods, 18-Km Ferozapur Road, Opp. Suflabad Lahore 042-35923593
Aina Aab-e-Hayat Pure Water	BWL-63	Lahore	08/12/2016	-	1.5 Liter	Al-Shifa Pure DW Main Harbanspura Bazaar, Lahore	Bottled by: Aina Aab-e-Hayat Pure Water: Head Office Khalid book Depot 40 Urdu bazaar Lahore 042-37223881
Zin Water	BWL-64	Lahore	08/12/2016	-	0.5 Liter	Mohsin Pan Shop Chobacha Phatak Stop Lahore	Bottled and Processed by Water World Marketed by: Champion Traders 8 Deves Road Lahore 0323-8832089 butmimran@gmail.com
Kuality Water	BWL-65	Lahore	09/12/2016	04/2017	0.6 Liter	Ghousia Baker & Sweet Green Town Azmat chowk Lahore	Produced By Kuality Water A Community Project of Kuality water Group Kuality Water Township Near 11,12 stop Lahore kualitywater@gamil.com
Xychil Pure Drinking Water	BWL-66	Lahore	09/12/2016	05/2017	0.6 Liter	Ghousia Bakers & Sweet, Hzrat Chowk, Lahore	Bottled By: Allied Food PCSIR Society College Road Lahore 0302-3585788
Doce Water	BWL-67	Lahore	09/12/2016	10/2017	0.5 Liter	Doce Bakers, Green Town, Lahore	48-M, Quaid-e-Azam Industrial State, Kot Lakhpat, Lahore www.doce.pk 042-35555555
Ola Nature's Pure Water	BWL-68	Lahore	09/12/2016		1.5 Liter	Utility Store Green Town Umer Chowk Lahore	A Product of Mezan: Filled By Mezan Beverage (Pvt) Ltd. 45-KM Multan Road, Lahore



Brand Name	PCRWR Code	City	Date of Collection	Date of Expiry	Size	Name & Address of Seller/Shop Keeper	Manufacturer's Address
<b>Gourmet Water</b>	BWL-69	Lahore	09/12/2016		0.6 Liter	Gourmet Bakers, Umer Chowk Green town Lahore	Gourmet Foods: Gate#1, Plot 1-5, Sunder Industrial Estate, Rawind Sunder Road, Lahore.
<b>Aqueous</b>	BWL-70	Lahore	09/12/2016	10/2017	0.5 Liter	Shop#380-383, City Trader Model Bazaar Township, Lahore.	Jaan M, Road, Near Architect Society, Lahore. www.gcg.com.pk 0334-2300006
<b>Jami Water</b>	BWL-71	Lahore	09/12/2016	11/2017	0.6 Liter	Collected from manufacturing point	A Product of Jami Water Services: 356-E, PIA Housing Society, PIA Road, Lahore. 042-35446800
<b>Aab-e-Khoob</b>	BWL-72	Lahore	09/12/2016	06/2017	0.5 Liter	Plot # 9-17-B 1, College Road, Near Akbar Chowk, Township, Lahore	Aab-e-Khoob , Plot # 9-17-B 1, College Road, Near Akbar Chowk, Township, Lahore 042-35214240
<b>Natural Aqwah</b>	BWL-73	Peshawar	13/12/2016	12/2017	0.6 Liter	Collected from manufacturing point	RG Enterprises: Plot#141, 7-Industrial Estate, Hayatabad, Peshawar. Web: www.aqwah.com
<b>Aqua Splash</b>	BWL-74	Peshawar	13/12/2016	12/2017	0.6 Liter	Collected from manufacturing point	Euro International, 192-A Industrial Estate, Hayatabad, Peshawar
<b>Nebrasaka</b>	BWL-75	Peshawar	13/12/2016	02/2018	0.6 Liter	Collected from manufacturing point	Bottled at Dew Point Healthcare Water Purification and Processing Facility: 12-C Industrial Estate, Hayatabad, Peshawar
<b>Fresh Life</b>	BWL-76	Peshawar	13/12/2016	12/2017	0.6 Liter	Collected from manufacturing point	3K Communications (Shirkat-e-Zaryab) 107-A, SIE, Hayatabad, Peshawar
<b>Aquatic Fresh</b>	BWL-77	Peshawar	13/12/2016	10/2017	0.6 Liter	Collected from manufacturing point	Royal Food Industries: Plot#1-C, Industrial Estate Hayatabad Peshawar
<b>Moya Mineral Water</b>	BWL-78	Peshawar	13/12/2016	12/2018	1.5 Liter	Collected from manufacturing point	Processed by: Al-Saudia Enterprises, 580/B Main Gulberg, Peshawar Cantt





## WATER QUALITY PARAMETERS AND METHODS USED FOR ANALYSIS

Sr. #	PARAMETERS	ANALYTICAL METHOD
1.	Alkalinity (mg/l as CaCO <sub>3</sub> )	2320, Standard method (2005) APHA
2.	Arsenic (ppb)	AAS Vario 6, Analytik Jena AG
3.	Bicarbonate	2320, Standard method (2005) APHA
4.	Calcium (mg/l)	3500-Ca-D, Standard Method (2005) APHA
5.	Carbonate (mg/l)	2320, Standard method (2005)
6.	Chloride (mg/l)	Titration (Silver Nitrate), Standard Method (2005) 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 (2005) APHA
10.	Magnesium (mg/l)	2340-C, Standard Method (2005) 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
19.	TDS (mg/l)	2540C, Standard method (2005) 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 (2005) APHA
24.	E. Coli (MPN/100ml)	9221-B,C&D, Standard Methods (2005) 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.	Co lour	(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
18.	Taste	-	Unobject.	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 Coliforms	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>Arsenic: Safe Limit : 10 parts per billion (ppb)</b>					
Sr. No	Brand Name	Code	City of Manufacturing	Unit	Results
1.	Well Care	BWL-38	Multan	ppb	34
2.	Lite Aqua	BWL-39	Multan	ppb	32
3.	New Premier	BWL-48	Lahore	ppb	31
4.	Royal Blue	BWL-52	Lahore	ppb	23
5.	Aqua Safe	BWL-54	Lahore	ppb	15
6.	Aqua Drink Water	BWL-57	Lahore	ppb	22
7.	Rahat	BWL-60	Lahore	ppb	12

<b>Sodium: Safe Limit : 50 parts per million (ppm)</b>					
Sr. No	Brand Name	Code	City of Manufacturing	Unit	Results
1.	Well Care	BWL-38	Multan	ppm	165
2.	NG Fresh Water	BWL-44	Hyderabad	ppm	90
3.	Oslo	BWL-45	Karachi	ppm	68
4.	New Premier	BWL-48	Lahore	ppm	88

<b>Potassium : Safe Limit : 10 parts per million (ppm)</b>					
Sr. No	Brand Name	Code	City of Manufacturing	Unit	Results
1.	Nurturmil Water	BWL-50	Lahore	ppm	14.9

<b>TDS : Safe Limit : 500 parts per million (ppm)</b>					
Sr. No	Brand Name	Code	City of Manufacturing	Unit	Results
2.	Well Care	BWL-38	Multan	ppm	589

<b>Bacteriological: (Total Coliforms , Fecal Coliforms &amp; E Coli) (Safe Limit: 0/100ml)</b>					
Sr. No	Brand Name	Code	Results		
			Total Coliforms (MPN/100ml)	E. Coli (MPN/100ml)	
1.	Aab-e-Khoob	BWL-72	04	Nil	



## PCRWR TESTING: SAFE BRANDS

Sr. No	Brand Name	Code	Quality (Safe/Unsafe)	
			Chemical	Microbiological
1.	Aqua Fina	BWL-01	Safe	Safe
2.	Infinity	BWL-02	Safe	Safe
3.	Rachna	BWL-03	Safe	Safe
4.	Elixer	BWL-04	Safe	Safe
5.	Aquwa Plus	BWL-05	Safe	Safe
6.	Murree Sparkletts	BWL-06	Safe	Safe
7.	Blu Water	BWL-07	Safe	Safe
8.	Oxen	BWL-08	Safe	Safe
9.	Ziran	BWL-09	Safe	Safe
10.	Hi-Fresh	BWL-10	Safe	Safe
11.	ECO	BWL-11	Safe	Safe
12.	Aqua Save	BWL-12	Safe	Safe
13.	Isberg	BWL-13	Safe	Safe
14.	Rise Water	BWL-14	Safe	Safe
15.	Coral Water	BWL-15	Safe	Safe
16.	Vina Fresh	BWL-16	Safe	Safe
17.	Bake Master	BWL-17	Safe	Safe
18.	Al-Haider	BWL-18	Safe	Safe
19.	ICE Well	BWL-19	Safe	Safe
20.	Athar	BWL-20	Safe	Safe
21.	Fresh Life	BWL-21	Safe	Safe
22.	Atlantic	BWL-22	Safe	Safe
23.	Mehr	BWL-23	Safe	Safe
24.	White Gold	BWL-24	Safe	Safe
25.	Hydr8	BWL-25	Safe	Safe
26.	Ripple	BWL-26	Safe	Safe
27.	Hydra	BWL-27	Safe	Safe
28.	Sunley Pure	BWL-28	Safe	Safe
29.	Verbena	BWL-29	Safe	Safe
30.	Oxygen +	BWL-30	Safe	Safe
31.	Deep Spring	BWL-31	Safe	Safe
32.	Nectar	BWL-32	Safe	Safe
33.	Valley	BWL-33	Safe	Safe
34.	Aqua Hygienic	BWL-34	Safe	Safe
35.	Aqua Filter King	BWL-35	Safe	Safe
36.	Zam	BWL-36	Safe	Safe
37.	Vital Happy Life	BWL-37	Safe	Safe
38.	NEW Aqua Care	BWL-40	Safe	Safe
39.	Pure Fresh Water	BWL-41	Safe	Safe
40.	Noble	BWL-42	Safe	Safe
41.	Crystal Spring	BWL-43	Safe	Safe
42.	Naseeb	BWL-46	Safe	Safe
43.	Yas	BWL-47	Safe	Safe
44.	Sufi water	BWL-49	Safe	Safe
45.	Bliss Water	BWL-51	Safe	Safe



Sr. No	Brand Name	Code	Quality (Safe/Unsafe)	
			Chemical	Microbiological
46.	Dewan Water Express	BWL-53	Safe	Safe
47.	Naimat	BWL-55	Safe	Safe
48.	Aab-e-Rahat	BWL-56	Safe	Safe
49.	Aqua PRO	BWL-58	Safe	Safe
50.	Nestle	BWL-59	Safe	Safe
51.	Kinley	BWL-61	Safe	Safe
52.	Bling	BWL-62	Safe	Safe
53.	Aina Aab-e- Hayat Pure Water	BWL-63	Safe	Safe
54.	Zin Water	BWL-64	Safe	Safe
55.	Kuality Water	BWL-65	Safe	Safe
56.	Xychil Pure Drinking Water	BWL-66	Safe	Safe
57.	Doce Water	BWL-67	Safe	Safe
58.	Ola Nature's Pure Water	BWL-68	Safe	Safe
59.	Gourmet Water	BWL-69	Safe	Safe
60.	AQUEOUS	BWL-70	Safe	Safe
61.	Jami Water	BWL-71	Safe	Safe
62.	Natural Aqwah	BWL-73	Safe	Safe
63.	Aqua Splash	BWL-74	Safe	Safe
64.	NEBRASAKA	BWL-75	Safe	Safe
65.	Fresh Life	BWL-76	Safe	Safe
66.	Aquatic Fresh	BWL-77	Safe	Safe
67.	Moya Mineral Water	BWL-78	Safe	Safe



## PCRWR TESTING: UNSAFE BRANDS

Sr. No	Brand Name	Code	Address/ Manufacturer	Quality (Safe/Unsafe)	
				Chemical	Microbiological
1.	Well Care	BWL-38	Manufactured by: Well care International (Pvt.) Ltd Khanewal Road Multan wellcare1222@gmail.com	Unsafe	Safe
2.	Lite Aqua	BWL-39	Lite Aqua INTR: Bahawalpur Road Multan	Unsafe	Safe
3.	NG Fresh Water	BWL-44	Nadir Hasan: Hyderabad Pakistan 0313-2105390 jam_nasir11@yahoo.com	Unsafe	Safe
4.	Oslo	BWL-45	Oslo International: 14-Ramzan chamber Dr. Billmorria Street # off 1.1 Chandigarh road Karachi	Unsafe	Safe
5.	New Premier	BWL-48	Zafir Industries: 19 km Near Highnoon Laboratories Multan Road Lahore	Unsafe	Safe
6.	Nurturmil Water	BWL-50	Manufactured By Searle IV Solutions (Pvt) Ltd. 1.5km Manga Raiwind Road Manga Mandi Distt. Lahore	Unsafe	Safe
7.	Royal Blue	BWL-52	IRIS foods (Pvt) Ltd 484-A, Tajpura LDA Scheme Lahore	Unsafe	Safe
8.	Aqua Safe	BWL-54	Bottled by: Aqua Safe Pakistan (Pvt) Ltd, 96-Mclead Road Lahore, Pakistan 042-37222335	Unsafe	Safe
9.	Aqua Drink Water	BWL-57	A Product of A.A trader Head office 27 M. Ali Road Liaqtabad Lahore	Unsafe	Safe
10.	Rahat	BWL-60	Rahat Bakers & Department stores Rahat Market Aziz Bhatti Shaheed Road Lahore Cantt. 042-36671412	Unsafe	Safe
11.	Aab-e-Khoob	BWL-72	Aab-e-Khoob Plot # 9-17-B 1, College Road, Near Akbar Chowk, Township, Lahore 042-35214240	Safe	Unsafe



## MARKET CONSISTENCY IN TWO NEIGHBORING QUARTERS

Sr. No	Consistent Brands	New Brands	Unavailable Brands
1.	Aqua Fina	Elixer	Maple Dew
2.	Infinity	Sunley Pure	Al-Shalal
3.	Rachna	Aqua Care	OASIS Plus
4.	Aquwa Plus	Vital Happy Life	JERS
5.	Murree Sparkletts	NG Fresh Water	Roha Water
6.	Blu Water	Oslo	Super Natural
7.	Ziran	Naseeb	Pure Pani
8.	Hi-Fresh	New Premier	Aab-e-Kousar
9.	ECO	Sufi Water	Khush Aab
10.	Aqua Save	Bliss Water	Premier Fresh
11.	Isberg	Royal Blue	Pearl
12.	Rise Water	Aqua Drink Water	Aqua Blue Drops
13.	Coral Water	Aqua PRO	Pak Life
14.	Vina	Rahat	AFRA
15.	Bake Master	Bling	Aqua 20
16.	Al-Haider	Aina Aab-e-Hayat	New Classic
17.	Ice Well	Zin Water	Royal Oasis
18.	Athar	Xychil Pure Drinking Water	National
19.	Fresh Life (Islamabad)	Ola Nature Pure Water	Siiz Cool
20.	Atlantic	Aqua ous	Piyaas Plus
21.	Mehr	Oxen	Pine'o
22.	White Gold	Aqua Hygienic	NN Water
23.	Hydr8	Aqua Filter King	Wasser Drink Water
24.	Ripple		Blue Plus
25.	Hydra		Pure Aqua
26.	Verbena		Global Water
27.	Oxygen +		Al-Massafi
28.	Deep Spring		Safe Water
29.	Nectar		JEL
30.	Valley		Crystal Maya
31.	Zam		XERUS Water
32.	Well Care		Glory
33.	Lite Aqua		New ARBO
34.	Nobel		Cottage Foods Drink Water
35.	Crystal Spring		MR.
36.	YAS		Super Namal Water
37.	Nurturmil Water		Livon
38.	Dewan Water Express		Reliable
39.	Aqua Safe		Droplet
40.	Naimat		Vinh
41.	Aab-e-Rahat		CALCI Dew
42.	Nestle		Pacific Pure
43.	Kinley		OAS Water
44.	Kuality Water		Aqua National
45.	Doce Water		Orizon
46.	Gourmet Water		Aqua Gen
47.	Jami Water		Zuran
48.	Aab-e-Khoob		Butt Water
49.	Natural Aqwah		Zum Water
50.	Aqua Splash		Blue Water
51.	NEBRASAKA		Cool Water



52.	Fresh Life (Peshawar)		SAAMA Water
53.	Aquatic Fresh		Sujo Punar
54.	Moya Mineral Water		VIVIDLE
55.	Pure Fresh Water		

### DISEASE POTENTIAL FROM CONTAMINATED BOTTLED WATER

Sr. No	Contaminant	Diseases Impacts
1.	<b>Bacteriological Contamination</b>	Cholera, Diarrhea, Dysentery, Hepatitis, Typhoid
2.	<b>Arsenic</b>	Cancer (lungs, bladder, skin, prostate, kidney, nose and liver), diabetes kidney diseases, hypertension, heart diseases, birth defects, black foot diseases.
3.	<b>Sodium</b>	Hypertension
4.	<b>Potassium</b>	Hyperkalimia

### CONCLUSIONS

Sr. No	Item	Conclusion	
		No.	% age
1.	<b>Total No. of Brands Collected</b>	<b>78</b>	<b>-</b>
2.	<b>Overall Safe Brands</b>	<b>67</b>	<b>86</b>
3.	<b>No. of Overall Unsafe Brands</b>	<b>11</b>	<b>14</b>
4.	<b>No. of Chemically Safe Brands</b>	<b>68</b>	<b>87</b>
5.	<b>No. of Chemically Unsafe Brands</b>	<b>10</b>	<b>13</b>
6.	<b>No. of Microbiologically Safe Brands</b>	<b>77</b>	<b>99</b>
7.	<b>No. of Microbiologically Unsafe Brands</b>	<b>01</b>	<b>01</b>
8.	<b>No. of Consistent Brands in Market</b>	<b>55</b>	<b>70</b>
9.	<b>No. of Brands Disappeared from Market</b>	<b>54</b>	<b>69</b>
10.	<b>No. of New Brands</b>	<b>23</b>	<b>30</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	PO <sub>4</sub>	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	NGVS	500	100	50	NGVS	NGVS	250	50	0.7	NGVS	0.3	10	10	250	10	-	-
Detection Limits	-	0.2	0.02	0.287	-	2	1	5	5	2	1	0.03	0.03	0.03	0.2	0.06	0.4	0.1	-	-
Units	-	NTU		µS/cm	Ppm	Ppm	Ppm	ppm	ppm	ppm	ppm	Ppm	ppm	ppm	ppm	ppm	ppm	ppb	MPN /100ml	MPN /100ml
<b>Aqua Fina</b>	BWL-01	BDL	7.61	216	119	BDL	15	60	20	24	19	0.09	BDL	BDL	1.5	BDL	52	0.9	Nil	Nil
<b>Infinity</b>	BWL-02	BDL	7.40	334	184	28	15	130	50	46	18	0.05	BDL	BDL	0.5	2	48	1	Nil	Nil
<b>Rachna</b>	BWL-03	BDL	7.00	370	204	40	12	150	30	90	14	0.44	BDL	BDL	0.9	BDL	25	1	Nil	Nil
<b>Elixer</b>	BWL-04	BDL	7.27	325	179	24	10	100	30	62	26	0.38	BDL	BDL	0.4	BDL	42	2	Nil	Nil
<b>Aquwa Plus</b>	BWL-05	BDL	7.02	241	133	32	03	92	45	48	11	0.20	BDL	BDL	0.5	BDL	09	1	Nil	Nil
<b>Murree Sparkletts</b>	BWL-06	BDL	7.63	323	178	36	15	150	140	16	13	0.20	BDL	BDL	0.9	1.7	16	1	Nil	Nil
<b>Blu Water</b>	BWL-07	BDL	6.93	301	166	32	12	130	40	60	13	0.59	BDL	BDL	0.5	0.8	32	3	Nil	Nil
<b>Oxen</b>	BWL-08	BDL	6.98	263	145	12	10	70	50	36	31	0.13	BDL	BDL	0.2	BDL	37	0.9	Nil	Nil
<b>Ziran</b>	BWL-09	BDL	7.37	321	177	28	10	110	40	60	24	0.42	BDL	BDL	0.2	1.2	33	1	Nil	Nil
<b>Hi-Fresh</b>	BWL-10	BDL	7.01	259	142	12	10	70	60	30	31	0.31	BDL	BDL	0.2	BDL	34	1	Nil	Nil
<b>ECO</b>	BWL-11	BDL	7.54	382	210	24	12	110	50	62	35	0.44	BDL	BDL	0.8	1.7	42	2	Nil	Nil
<b>Aqua Save</b>	BWL-12	BDL	7.04	369	203	28	19	150	50	85	13	0.45	BDL	BDL	0.1	1.9	09	1	Nil	Nil
<b>Isberg</b>	BWL-13	BDL	7.29	271	149	24	10	100	65	50	20	0.41	BDL	BDL	0.4	BDL	10	4	Nil	Nil
<b>Rise Water</b>	BWL-14	BDL	7.32	342	188	32	10	120	100	36	28	0.42	BDL	BDL	0.9	1.2	28	1	Nil	Nil
<b>Coral Water</b>	BWL-15	BDL	7.55	398	219	36	15	150	50	82	22	0.62	BDL	BDL	0.2	2	26	1	Nil	Nil
<b>Vina Fresh</b>	BWL-16	BDL	6.98	355	195	32	15	140	60	64	16	0.67	BDL	BDL	0.6	1.7	20	1	Nil	Nil

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

October-December, 2016

# PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



Brand Name	Brand Code	Turbidity	pH	EC	TDS	Ca	Mg	Hard	HCO <sub>3</sub>	Cl	Na	F	PO <sub>4</sub>	Fe	K	NO <sub>3</sub>	SO <sub>4</sub>	As	* Microbiological Contaminants	
<b>PSQCA Bottled Water Standards</b>	-	<b>0.5</b>	<b>6.5 - 8.5</b>	<b>NGVS</b>	<b>500</b>	<b>100</b>	<b>50</b>	<b>NGVS</b>	<b>NGVS</b>	<b>250</b>	<b>50</b>	<b>0.7</b>	<b>NGVS</b>	<b>0.3</b>	<b>10</b>	<b>10</b>	<b>250</b>	<b>10</b>	<b>Total Coli forms 0/100ml</b>	<b>E-Coli 0/100ml</b>
<b>Detection Limits</b>	-	<b>0.2</b>	<b>0.02</b>	<b>0.287</b>	-	<b>2</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.2</b>	<b>0.06</b>	<b>0.4</b>	<b>0.1</b>	-	-
<b>Bake Master</b>	BWL-17	BDL	7.14	363	200	36	17	160	50	60	14	0.45	BDL	BDL	0.7	1.7	40	1	Nil	Nil
<b>Al-Haider</b>	BWL-18	BDL	7.17	145	80	BDL	10	40	55	10	23	0.47	BDL	BDL	0.9	1.6	10	1	Nil	Nil
<b>ICE Well</b>	BWL-19	BDL	7.16	384	211	32	15	140	60	62	24	0.67	BDL	BDL	0.3	BDL	34	2	Nil	Nil
<b>Athar</b>	BWL-20	BDL	7.64	504	277	32	27	190	250	18	44	0.62	BDL	BDL	4.1	1.4	BDL	1	Nil	Nil
<b>Fresh Life</b>	BWL-21	BDL	7.20	364	200	34	15	150	140	20	13	0.34	BDL	BDL	1.3	2.4	15	BDL	Nil	Nil
<b>Atlantic</b>	BWL-22	BDL	7.13	364	200	36	15	150	140	16	12	0.10	BDL	BDL	1.6	1.6	18	BDL	Nil	Nil
<b>Mehr</b>	BWL-23	BDL	7.03	472	260	50	11	170	160	34	24	0.08	BDL	BDL	1.5	2.6	20	BDL	Nil	Nil
<b>White Gold</b>	BWL-24	BDL	7.08	329	181	16	7	70	80	42	40	0.04	BDL	BDL	0.6	2	17	BDL	Nil	Nil
<b>Hydr8</b>	BWL-25	BDL	7.29	458	252	36	19	170	140	22	24	0.12	BDL	BDL	1.4	1.6	49	BDL	Nil	Nil
<b>Ripple</b>	BWL-26	BDL	6.84	380	209	48	10	160	40	65	11	0.36	BDL	BDL	0.9	2..3	38	BDL	Nil	Nil
<b>Hydra</b>	BWL-27	BDL	7.36	418	230	32	12	130	160	20	33	0.10	BDL	BDL	1.2	2.1	16	BDL	Nil	Nil
<b>Sunley Pure</b>	BWL-28	BDL	7.40	416	229	32	12	130	160	20	33	0.04	BDL	BDL	1.2	1.9	14	BDL	Nil	Nil
<b>Verbena</b>	BWL-29	BDL	6.84	367	202	40	10	140	100	24	18	0.04	BDL	BDL	1.1	1.2	34	BDL	Nil	Nil
<b>Oxygen +</b>	BWL-30	BDL	7.24	411	226	12	12	80	100	46	50	0.20	BDL	BDL	0.8	1.6	20	BDL	Nil	Nil
<b>Deep Spring</b>	BWL-31	BDL	7.32	330	182	16	21	125	120	20	18	0.10	BDL	BDL	0.9	2.6	12	BDL	Nil	Nil
<b>Nectar</b>	BWL-32	BDL	7.08	376	207	24	22	50	100	12	16	0.17	BDL	BDL	1.5	1.9	64	BDL	Nil	Nil
<b>Valley</b>	BWL-33	BDL	7.86	250	138	16	7	70	80	12	25	0.34	BDL	BDL	1.3	BDL	35	BDL	Nil	Nil
<b>Aqua Hygienic</b>	BWL-34	BDL	7.25	320	176	40	5	120	60	75	28	BDL	BDL	BDL	BDL	BDL	BDL	BDL	Nil	Nil
<b>Aqua Filter King</b>	BWL-35	BDL	7.65	298	164	30	13	130	30	68	6	BDL	BDL	BDL	0.4	BDL	16	BDL	Nil	Nil
<b>Zam</b>	BWL-36	BDL	7.30	340	185	40	12	150	40	64	25	BDL	BDL	BDL	0.2	BDL	43	BDL	Nil	Nil

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

October-December, 2016

# PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



Brand Name	Brand Code	Turbidity	pH	EC	TDS	Ca	Mg	Hard	HCO <sub>3</sub>	Cl	Na	F	PO <sub>4</sub>	Fe	K	NO <sub>3</sub>	SO <sub>4</sub>	As	* Microbiological Contaminants	
PSQCA Bottled Water Standards	-	0.5	6.5 - 8.5	NGVS	500	100	50	NGVS	NGVS	250	50	0.7	NGVS	0.3	10	10	250	10	Total Coli forms 0/100ml	E-Coli 0/100ml
Detection Limits	-	0.2	0.02	0.287	-	2	1	5	5	2	1	0.03	0.03	0.03	0.2	0.06	0.4	0.1	-	-
Vital Happy Life	BWL-37	BDL	7.40	293	166	31	12	128	35	70	11	BDL	BDL	BDL	BDL	BDL	22	2.5	Nil	Nil
Well Care	BWL-38	BDL	7.71	1070	589	28	17	140	350	60	165	0.17	BDL	BDL	5.6	BDL	79	34	Nil	Nil
Lite Aqua	BWL-39	BDL	7.86	374	206	36	12	140	80	32	22	0.15	BDL	BDL	2.7	1.6	58	32	Nil	Nil
New Aqua Care	BWL-40	BDL	7.40	364	206	36	12	140	60	60	28	BDL	BDL	BDL	0.3	BDL	50	BDL	Nil	Nil
Pure Fresh Water	BWL-41	BDL	7.13	320	176	16	07	70	50	52	32	BDL	BDL	BDL	0.8	1.4	30	10	Nil	Nil
Noble	BWL-42	BDL	7.70	428	235	40	15	160	50	85	16	BDL	BDL	BDL	BDL	2.5	27	1	Nil	Nil
Crystal Spring	BWL-43	BDL	8.26	257	141	12	15	90	40	50	14	BDL	BDL	BDL	2.8	BDL	20	1	Nil	Nil
NG Fresh Water	BWL-44	BDL	7.04	581	320	08	10	60	50	96	90	0.03	BDL	BDL	3.0	2.9	67	2	Nil	Nil
Oslo	BWL-45	BDL	7.05	399	219	BDL	10	40	60	67	68	0.04	BDL	BDL	4.6	1.9	36	2	Nil	Nil
Naseeb	BWL-46	BDL	6.70	368	202	12	05	50	20	90	48	0.10	BDL	BDL	3.9	1.6	11	0.9	Nil	Nil
Yas	BWL-47	BDL	7.82	397	218	36	15	150	25	80	14	BDL	BDL	BDL	0.9	1.9	31	BDL	Nil	Nil
New Premier	BWL-48	BDL	7.37	553	304	08	12	70	185	36	88	0.19	BDL	BDL	2.3	2.3	32	31	Nil	Nil
Sufi water	BWL-49	BDL	7.52	351	193	28	17	140	40	80	16	BDL	BDL	BDL	0.5	1.8	19	2	Nil	Nil
Nurturmil Water	BWL-50	BDL	7.60	195	107	16	07	40	30	32	5	BDL	BDL	BDL	15	BDL	24	1	Nil	Nil
Bliss Water	BWL-51	BDL	7.00	403	222	40	12	150	40	80	13	BDL	BDL	BDL	0.4	2.0	25	7	Nil	Nil
Royal Blue	BWL-52	BDL	7.33	305	168	16	10	80	100	24	24	BDL	BDL	BDL	2.2	1.2	21	23	Nil	Nil
Dewan Water Express	BWL-53	BDL	7.26	312	172	28	12	120	50	48	14	BDL	BDL	BDL	0.3	1.3	31	3	Nil	Nil
Aqua Safe	BWL-54	BDL	7.71	400	220	24	07	30	88	44	47	0.06	BDL	BDL	2.8	2.1	40	15	Nil	Nil

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

October-December, 2016

# PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



Brand Name	Brand Code	Turbidity	pH	EC	TDS	Ca	Mg	Hard	HCO <sub>3</sub>	Cl	Na	F	PO <sub>4</sub>	Fe	K	NO <sub>3</sub>	SO <sub>4</sub>	As	* Microbiological Contaminants	
<b>PSQCA Bottled Water Standards</b>	-	0.5	6.5 - 8.5	NGVS	500	100	50	NGVS	NGVS	250	50	0.7	NGVS	0.3	10	10	250	10	Total Coli forms 0/100ml	E-Coli 0/100ml
<b>Detection Limits</b>	-	0.2	0.02	0.287	-	2	1	5	5	2	1	0.03	0.03	0.03	0.2	0.06	0.4	0.1	-	-
Naimat	BWL-55	BDL	6.90	402	221	28	10	110	20	10	36	BDL	BDL	BDL	0.3	2.3	9	10	Nil	Nil
Aab-e-Rahat	BWL-56	BDL	7.27	397	218	16	15	100	70	68	45	BDL	BDL	BDL	0.9	1.4	28	10	Nil	Nil
Aqua Drink Water	BWL-57	BDL	7.35	377	207	10	13	70	110	32	50	0.18	BDL	BDL	1.2	1.2	30	22	Nil	Nil
Aqua PRO	BWL-58	BDL	7.03	257	141	20	12	100	20	50	10	BDL	BDL	BDL	0.5	BDL	26	5	Nil	Nil
Nestle	BWL-59	BDL	7.57	451	248	40	50	160	50	96	24	BDL	BDL	BDL	0.4	2.3	30	6	Nil	Nil
Rahat	BWL-60	BDL	7.31	408	224	40	13	150	12	96	18	BDL	BDL	BDL	0.4	2.0	42	12	Nil	Nil
Kinley	BWL-61	BDL	7.40	288	158	12	22	120	40	10	7	0.22	BDL	BDL	2.5	1.7	24	5	Nil	Nil
Bling H <sub>2</sub> O	BWL-62	BDL	6.88	341	128	32	05	180	45	72	28	BDL	BDL	BDL	0.2	1.5	BDL	4	Nil	Nil
Aina Aab-e-Hayat Pure Water	BWL-63	BDL	7.01	346	190	32	15	140	50	65	14	BDL	BDL	BDL	0.3	1.2	27	2	Nil	Nil
Zin Water	BWL-64	BDL	7.52	301	166	20	12	100	45	60	24	BDL	BDL	BDL	0.9	0.9	22	9	Nil	Nil
Kuality Water	BWL-65	BDL	7.06	417	229	36	15	150	50	70	25	BDL	BDL	BDL	0.3	2.4	40	2	Nil	Nil
Xychil Pure Drinking Water	BWL-66	BDL	6.93	367	202	36	17	160	30	70	14	BDL	BDL	BDL	0.2	1.7	54	2	Nil	Nil
Doce Water	BWL-67	BDL	6.72	317	174	24	15	120	40	60	19	BDL	BDL	BDL	0.4	1.6	34	2	Nil	Nil
Ola Nature's Pure Water	BWL-68	BDL	6.66	312	172	28	10	110	45	48	18	BDL	BDL	BDL	0.2	1.2	36	1	Nil	Nil
Gourmet Water	BWL-69	BDL	7.16	305	168	36	05	110	70	50	25	BDL	BDL	BDL	0.3	0.7	18	2	Nil	Nil
Aqueous	BWL-70	BDL	7.47	350	193	20	15	110	80	40	30	0.05	BDL	BDL	0.4	1.9	35	3	Nil	Nil
Jami Water	BWL-71	BDL	6.97	395	217	30	04	90	70	50	43	BDL	BDL	BDL	0.8	1.8	30	1	Nil	Nil

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

October-December, 2016

## PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



Brand Name	Brand Code	Turbidity	pH	EC	TDS	Ca	Mg	Hard	HCO <sub>3</sub>	Cl	Na	F	PO <sub>4</sub>	Fe	K	NO <sub>3</sub>	SO <sub>4</sub>	As	* Microbiological Contaminants	
PSQCA Bottled Water Standards	-	0.5	6.5 - 8.5	NGVS	500	100	50	NGVS	NGVS	250	50	0.7	NGVS	0.3	10	10	250	10	Total Coli forms 0/100ml	E-Coli 0/100ml
Detection Limits	-	0.2	0.02	0.287	-	2	1	5	5	2	1	0.03	0.03	0.03	0.2	0.06	0.4	0.1	-	-
<b>Aab-e-Khoob</b>	BWL-72	BDL	6.93	428	235	32	05	100	75	70	45	0.06	BDL	BDL	1.1	2.6	19	2	<b>04</b>	Nil
Natural Aqwah	BWL-73	BDL	7.28	355	195	32	12	130	65	70	19	BDL	BDL	BDL	BDL	1.8	5	BDL	Nil	Nil
Aqua Splash	BWL-74	BDL	6.71	274	151	32	07	110	20	64	13	BDL	BDL	BDL	0.4	BDL	28	BDL	Nil	Nil
Nebrasaka	BWL-75	BDL	7.07	387	213	36	15	150	50	70	18	BDL	BDL	BDL	BDL	1.3	41	BDL	Nil	Nil
Fresh Life	BWL-76	BDL	7.10	386	212	32	1.3	135	65	70	22	BDL	BDL	BDL	1.0	1.4	24	BDL	Nil	Nil
Aquatic Fresh	BWL-77	BDL	7.57	563	310	48	27	230	200	32	20	0.33	BDL	BDL	1.9	3.1	26	BDL	Nil	Nil
Moya Mineral Water	BWL-78	BDL	6.87	250	138	12	17	100	80	30	11	BDL	BDL	BDL	0.08	BDL	BDL	BDL	Nil	Nil

NGVS =No Guideline Value Set

BDL = Below Detection Limits

\* Microbiological results have also been verified by IDEXX (Quanti-Tray/2000 USA) and Membrane Filtration (CFU/100ml, 9222-B&D APHA) Methods.

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

October-December, 2016