



# QUARTERLY REPORT BOTTLED WATER QUALITY

(January-March, 2013)



**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)

January-March, 2013



## 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 at source of production, 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

No. of Brands Collected	87	
No. of Cities Targeted	13 (Islamabad, Rawalpindi, Lahore, Faisalabad, Sargodha, Sialkot, D.G Khan, Multan, Tandojam, Karachi, Quetta, Gilgit and Peshawar)	
Composition of Sampling Team	One Research Officer and Two Laboratory Assistants	
Sampling Procedure	Samples of eighty seven commercially available brands of mineral/bottled water were collected from nine cities of four Provinces of Pakistan. These samples were collected by the senior staff members of Head Office and Regional Offices of PCRWR from January-March, 2013. A set of four bottles of each brand was collected and sealed on site. Identification codes are allotted to all the brands according to PCRWR Bottled Water Classification System.	
Transparency	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

## PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



Sr. No	Brand Name	PCRWR Code	City	Date of Collection	Date of Expiry	Claimed Bottled Water Type	Size	Name & Address of Seller/Shop Keeper	Manufacturer
1	Hydra	BWW-01	Islamabad	07/02/2013	-	-	6 Liter	Plot#31-A, Sector I-9/2 Industrial Area Islamabad	Plot#31-A, Sector I-9/2 Industrial Area Islamabad
2	Nectar	BWW-02	Islamabad	07/02/2013	02/2013	-	0.6 Liter	Plot#14/10 G-7 Markaz Islamabad	Plot#14/10 G-7 Markaz Islamabad
3	Verbena	BWW-03	Rawalpindi	07/02/2013	10/2013	-	0.6 Liter	Flat#6, 1 <sup>st</sup> floor Vizor Pharma(Pvt) Ltd Lalazar Estate Rawalpindi	Flat#6, 1 <sup>st</sup> floor Vizor Pharma(Pvt) Ltd Lalazar Estate Rawalpindi
4	Water Plus	BWW-04	Islamabad	07/02/2013	072014	-	0.6 Liter	Plot#235, St#6 1-9/3 Islamabad	Plot#235, St#6 1-9/3 Islamabad
5	Venora	BWW-05	Islamabad	07/02/2013	08/2013	-	0.6 Liter	Plot#238, I-9/3, Islamabad	Plot#238, I-9/3, Islamabad
6	Splash Dew	BWW-06	Islamabad	07/02/2013		-	1.5 Liter	Plot#139, St#9 Industrial Area 1-10/3 Islamabad	Plot#139, St#9 Industrial Area 1-10/3 Islamabad
7	Valley	BWW-07	Islamabad	07/02/2013	02/2013	-	1.5 Liter	Plot#277, Street#1, I-9/3 industrial Area Islamabad	Plot#277, Street#1, I-9/3 industrial Area Islamabad
8	Deosai	BWW-08	Islamabad	07/02/13	07/2013	-	1.5 Liter	Margalla Foods & Beverages Plot# 32 Khayaban-e-Johar 1-9/2 Islamabad	Margalla Foods & Beverages Plot# 32 Khayaban-e-Johar 1-9/2 Islamabad
9	Italian Crystal	BWW-09	Rawalpindi	12/02/2013	-	-	0.6 Liter	G-9 Italian Plaza High Court Road Opp. Italian CNG Rawalpindi	G-9 Italian Plaza High Court Road Opp. Italian CNG Rawalpindi
10	Atlantis Premium Water	BWW-10	Rawalpindi	12/02/2013	02/2014	-	1.5 Liter	Plot#615, PO Fazaia Colony Near TCS Office Khanna Rawalpindi	Plot#615, PO Fazaia Colony Near TCS Office Khanna Rawalpindi
11	A-One	BWW-11	Rawalpindi	12/02/2013	02/2013	-	1.5 Liter	Plot#152, St#8, Sector#3 KRL Road Rawalpindi	Plot#152, St#8, Sector#3 KRL Road Rawalpindi
12	Hydr8	BWW-12	Islamabad	12/02/2013	09/2013	-	0.5 Liter	T-7 Sardar Arcade2, G-11 Markaz, Islamabad	T-7 Sardar Arcade2, G-11 Markaz, Islamabad
13	AQUA SKY DROP	BWW-13	Islamabad	12/02/2013	-	-	1.5 Liter	A Project of ITTEHAD Enterprises Ghori Town Phase-1 Opposite Fizaia Colony Near	A Project of ITTEHAD Enterprises Ghori Town Phase-1 Opposite Fizaia Colony Near Khanna Bridge Islamabad

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								Khanna Bridge Islamabad	
14	Fresh Life	BWW-14	Rawalpindi	12/02/2013	-	-	1.5 Liter	Street#2, Anwaar Colony, Near Khanna Pull Service Road Rawalpindi	Street#2, Anwaar Colony, Near Khanna Pull Service Road Rawalpindi
15	Al-Saudia (Water Pack)	BWW-15	Islamabad	12/02/2013	12/2013	-	0.5 Liter	Al- Saudia Foods Barma Town Lehterar Road Islamabad	Al- Saudia Foods Barma Town Lehterar Road Islamabad
16	Tripple five	BWW-16	D.G.Khan	15/01/2013	12/2013	-	0.6 Liter	Al-Raheem Medical Store Opposite D.H.Q D.G.Khan	Ali Khan 555 Beverages Company #12,Cannal view Town Sahiwal
17	Himalaya Cool	BWW-17	D.G.Khan	15/01/2013	12/2013	-	0.6 Liter	Gulzar Medical Store D.G.Khan	Himaliya Enterprises Balak Serwar City Jam Pur Road D.G.Khan
18	Mr. Water	BWW-18	D.G.Khan	15/01/2013	12/2013	-	0.6 Liter	New Alkareem Medical Store D.G.Khan	A Quality Product of Higher Neutraceutical
19	Sufi	BWW-19	D.G.Khan	15/01/2013	07/2014	-	0.6 Liter	Chughtai Super Store Block 17 D.G.Khan	Hadayat Food Stuffs, Industries(Pvt)Ltd 1-B,Garden block, Garden Town Lahore
20	Zindagi Pani	BWW-20	D.G.Khan	15/01/2013	12/2013	-	0.6 Liter	New Alkareem Medical Store D.G.Khan	U.A.S Pharma Lahore H #54 Mayo Garden Town, Lahore <b>Sub Office:</b> 38-C Main Market Khayaban- e-Sarwar D.G.Khan
21	Atlantis Water	BWW-21	Faisalabad	04/02/2013	10/2013	-	1.5 Liter	Pllot#57,St#1 7 Dastageer Colony West Canal Road Faisalabad	Pllot#57,St#17 Dastageer Colony West Canal Road Faisalabad
22	Fresco Healthy Water	BWW-22	Multan	01/02/2013	12/2013	-	1.5 Liter	One Stop Drink Corner Chungi#6 Bosan Road Multan	Fresco Foods Jhang Road Kabir Wala
23	Unique Water	BWW-23	Multan	01/02/2013	11/2013	-	1.5 Liter	Khan Medicose Mehran Plaza Nishter Hospital Multan	M. Enterprises L.M.Q Road Multan, 03008637336
24	Aqua 7	BWW-24	Multan	30/01/2013	11/2013	-	0.6 Liter	Souk Super Store Bosan Road Multan	Pulse International 4,H.T.E.Z Old Road Multan
25	Lite Aqua	BWW-25	Multan	01/02/2013	-	-	0.6 Liter	Ali Raza Drink Corner Chowk Shah Abbas Multan	D-8-1 Mahmood a bad Multan
26	Pan Pura	BWW-26	Multan	31/01/2013	02/2014	-	0.6 Liter	Shafiq Cold Drink Corner	Pan Pura(Pvt)Ltd Tufailabad 253-E.B

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								Vehari Chowk Multan	Burewala
27	Oriel	BWW-27	Multan	31/01/2013	07/2013	-	0.6 Liter	Wasco International Bosan Road Multan	Wasco International Bosan Road Multan
28	Blu Water	BWW-28	Multan	31/01/2013	02/2013	-	0.6Liter	Food Festival Old Sabzi Mandi Hasan Parwana Multan	Al-Hilal Industries(Pvt)Ltd Sultan Nagar Vehari Road Multan
29	Kalash Pure Water	BWW-29	Multan	31/01/2013	12/2014	-	0.6 Liter	Mushtaq Drink Corner Vehari Chowk Multan	Al-Rehman Enterprises Ali Hijwari Arcade Kutchery Road Multan
30	Springley	BWW-30	Multan	31/01/2013	06/2014	-	0.6 Liter	Munni Tuck Shop Multan	Springley-e-Brand of Qarshi industries(Pvt ) Ltd Hattar Pakistan
31	Premier Pure Water	BWW-31	Sargodha	12/02/2013	12/2013	-	0.6 Liter	Wagon Adda 47 NB Sargodha	Zafir Industries 19-km Near Highnoon Laboratories Multan Road Lahore
32	Hi-Fresh	BWW-32	Sargodha	12/02/2013	12/2013	-	0.6 Liter	Madina Farms 84-N.B Sargodha Pakistan	Madina Farms 84-N.B Sargodha Pakistan
33	Nation	BWW-33	Sargodha	12/02/2013	08/2013	-	0.6 Liter	Taj Mahal Bakery 47 Pul Sargodha	Hamza Brothers 9-km G.T Road Rachna Town Shahdara Lahore
34	Murree Sparkletts	BWW-34	Sargodha	12/02/2013	11/2013	-	0.6 Liter	Sheraz CNG Station 47 pul Lahore Road	Plot#10/2, Phase 111 Industrial Estate Hattar
35	Crystal Pure Water	BWW-35	Sargodha	12/02/2013	12/2013	-	0.6 Liter	News 1 General Bus Stand Sargodha	Plot#24,Old Civil Lines Mela Mandi Road Sargodha
36	Oxigzyzer	BWW-36	Lahore	20/2/2013	11/2013	-	1.5 Liter	PanShop Railway Station Lahore	E-mail:info@oxigzyzer.com
37	Aqua Cool	BWW-37	Lahore	18/02/2013	12/2013	-	1.5 Liter	Pan Shop Naizi Ada Lahore	H-Enterprises 50-B Sabzazar Lahore
38	Sparkle	BWW-38	Lahore	13/02/2013	-	-	1.5 Liter	Ashiq Pan Shop Johar Town G-1 Lahore	393-F1,Johar Town Lahore
39	Gourmet	BWW-39	Lahore	18/02/2013	06/2013	-	1.5 Liter	Gourmet Bakers 637 Umer Block Shehryar Market Lahore	Gourmet Foods 1-5 sunder Industrial Estate Lahore
40	Kallan Water	BWW-40	Lahore	20/02/2013	11/2013	-	0.6 Liter	PanShop First Bus Stand Railway Station Lahore	Help Line# 042-37490404 , 0323-4304302 Lahore
41	Nestle	BWW-41	Lahore	13/02/2013	07/2014	-	0.6 Liter	P.N.P The Pharmacy Johar Town	308-Upper Mall Lahore Pakistan

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42	Doce	BWW-42	Lahore	18/02/2013	01/2014	-	0.6 Liter	G-1 Lahore Doce Bakers 637 Umer Block Lahore	48-M,Quaid-e- Azam Industrial Estate Kot Lakhpat Lahore
43	A- Cool	BWW-43	Lahore	18/02/2013	08/2013	-	0.6 Liter	Pan Shop Sherakot Lahore	Ali Enterprises Multan Road Lahore
44	Aquafina	BWW-44	Lahore	18/02/2013	12/2013	-	0.6 Liter	Gourmet Bakers 637 Umer Block Shehryar Market Lahore	32-N,Gulberg 11,Lahore Pakistan
45	Aqua National	BWW-45	Lahore	13/02/2013	12/2013	-	0.6 Liter	PanShop Lari Ada Lahore	Mili Brothers 8-km G.T Road Shahdra Lahore
46	Kinley	BWW-46	Lahore	13/02/2013	12/2013	-	0.6 Liter	Calories Bakers & Sweets G-1 Johar Town Lahore	CoCa Cola Beverages(CC&PL) 5-E,11,Gulberg 111 Lahore
47	Al-Shifa Water	BWW-47	Lahore	18/02/2013	12/2013	-	0.6 Liter	Pan Shop Bund Road Lahore	Bund Road Lahore Pakistan
48	Active	BWW-48	Lahore	18/02/2013		-	0.6 Liter	Pan Shop Sherakot Lahore	Ali Enterprises 14 Main Road Sanda Lahore
49	Aqua Safe	BWW-49	Lahore	20/02/2013	12/2013	-	0.6 Liter	Zameendara Pan Shop Railway Station Lahore	96-Mcleod Road Lahore Pakistan
50	Sparkling	BWW-50	Lahore	18/02/2013	01/2014	-	0.6 Liter	PanShop Sherakot Bund Road Lahore	N.M Enterprises 051-5859591
51	Aqua RO7	BWW-51	Lahore	18/02/2013	06/2013	-	0.5 Liter	Hasan Kot 7.5 Km Raiwind Road Lahore	Hasan Kot 7.5 Km Raiwind Road Lahore
52	Water Empire	BWW-52	Islamabad	07/3/2013	12/2014	-	1.5 Liter	Plot#8,St#4, 1-10/3 Islamabad	Plot#8,St#4, 1- 10/3 Islamabad
53	Mezban	BWW-53	Islamabad	07/03/2013	-	-	0.5 Liter	Mezban Water Main Highway Japan Road Near Sihala Khurd Islamabad	Mezban Water Main Highway Japan Road Near Sihala Khurd Islamabad
54	Ripple	BWW-54	Rawalpindi	07/03/2013	-	-	1.5 Liter	Main Mirpur Road,Al- Noor Colony Sector#3,Cor ner of St#6 Behind Fazaia Colony Rawalpindi	Main Mirpur Road,Al-Noor Colony Sector#3,Corner of St#6 Behind Fazaia Colony Rawalpindi
55	Danni Pure Water	BWW-55	Tando Jam	15/03/2013	2015	-	0.6 Liter	Faisal General Store Hussainabad Hyderabad	Pak National co. Lahore Tower Market Hakeem Habib Ullah Road Hyderabad
56	Healthy Water	BWW-56	Tando Jam	15/03/2013	-	-	0.6 Liter	Farooque Pan Shop Hussainabad Hyderabad	CS19/4 Near Fareed Plaza Liaquat Colony Industrial Area

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57	Vey	BWW-57	Tando Jam	15/03/2013	03/2015	-	0.6 Liter	Shedi Goth Qasimabad Phase 02 Hyderabad	Hyderabad Fluid Technology Int, (Pvt) Ltd.424,Bhayani Centre Block-M North Nazimabad Karachi
58	Standard	BWW-58	Quetta	29/01/2013	06/2012	-	1.5 Liter	Marhaba General Store Quetta	Standard (Private) industries Ltd. Plot#48-B,Eastern Industrial Area Quetta Pakistan
59	Noble	BWW-59	Quetta	29/01/2013	12/2012	-	1.5 Liter	Marhaba General Store Quetta	Tower Market Haeem Habib Road Hyderabad
60	Aqua Hygienic	BWW-60	Quetta	29/01/2013	-	-	1.5 Liter	Laziz Pan House&Gen. Store Quetta	A one City Street#7 Brewery Road Quetta Pakistan
61	Excellent Water	BWW-61	Quetta	29/01/2013	12/2013	-	1.5 Liter	Laziz Pan House&Gen. Store Quetta	Industrial Area Quetta Pakistan
62	Isberg	BWW-62	Sialkot	14/03/2013	12/2013	-	0.6 Liter	Premier Water Refining Company Dhabola Roras Road Sialkot	Premier Water Refining Company Dhabola Roras Road Sialkot
63	Rise Water	BWW-63	Sialkot	14/03/2013	06/2013	-	0.6 Liter	3-km Kingra Road Sialkot	3-km Kingra Road Sialkot
64	Vina	BWW-64	Sialkot	14/03/2013	01/2014	-	0.6 Liter	Al-Sultan Beverages Industrial Chapar Road Sialkot	Al-Sultan Beverages Industrial Chapar Road Gull Bahar Kalan Sialkot
65	ECO Water	BWW-65	Sialkot	14/03/2013	12/2013	-	0.6 Liter	J&J Food Beverages Roras Road Naul Chowk Sialkot	J&J Food Beverages Roras Road Naul Chowk Sialkot
66	Aqua Save	BWW-66	Sialkot	14/03/2013	02/2014	-	0.6 Liter	Wazirabad Road Jalianwala Ugoki Sialkot	Wazirabad Road Jalianwala Ugoki Sialkot
67	Athar	BWW-67	Sialkot	14/03/2013	-	-	0.6 Liter	Haji Pura Road Sialkot	Haji Pura Road Sialkot
68	Sujo Natural	BWW-68	Gilgit	19/03/2013	10/2013	-	0.5 Liter	Salar Road Pakistan Uooer Gilgit G.8 Pakistan	Salar Road Pakistan Uooer Gilgit G.8 Pakistan
69	Vividle	BWW-69	Gilgit	19/03/2013	03/2014	-	0.6 Liter	Vividle Private Ltd.Near Old China Bridge Danyore Gilgit	Vividle Private Ltd.Near Old China Bridge Danyore Gilgit
70	NEBRASKA	BWW-70	Peshawar	19/3/2013	03/2014	-	0.6 Liter	Hayatabad Industrial Area Peshawar	Suite#01 First Floor Glamour One Plaza PECO Town Ship Lahore
71	Natural Aqwah	BWW-71	Peshawar	19/3/2013	03/2014	-	0.6 Liter	RG enterprises	RG enterprises Plot#1 41-A

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								Plot#1 41-A Industrial Estate Hayatabad Peshawar	Industrial Estate Hayatabad Peshawar
72	Moya Mineral Water	BWW-72	Peshawar	19/3/2013	-	-	0.6 Liter	Al-Saudia Enterprises 580/B Main Gulberg Peshawar Cantt	Al-Saudia Enterprises 580/B Main Gulberg Peshawar Cantt
73	Aquatic Fresh	BWW-73	Peshawar	19/3/2013	01/2014	-	0.6 Liter	Royal Food Industries Plot#1-C Industrial Estate Jamrud Road Peshawar KPK Pakistan	Royal Food Industries Plot#1-C Industrial Estate Jamrud Road Peshawar KPK Pakistan
74	Aqua sure	BWW-74	Peshawar	19/3/2013	09/2014	-	0.6 Liter	Shakeel General Store Haji Camp Adda Peshawar	Shine Industries G.T Road Peshawar
75	Aqua Splash	BWW-75	Peshawar	19/3/2013	02/2014	-	0.6 Liter	(Euro International) A-7, Town Centre, Abdara Road University Town Peshawar	(Euro International) A-7, Town Centre, Abdara Road University Town Peshawar
76	Rhine Blue	BWW-76	Karachi	15/03/2013	-	-	0.6 Liter	Mr. Sohail General Store Saudabad, S-2 Area Malir Karachi	Main Road Saudabad Opp. Farooqi Masjid Karachi
77	Orion	BWW-77	Karachi	15/03/2013	12/2014	-	0.6 Liter	M. Ishaq Jan Distributors Landhi Road Social Security Hospital Karachi #22.	Orion Foods E-1, Suite#2 Defance View Phase-11 Karachi
78	Sunlay	BWW-78	Karachi	14/03/2013	12/2014	-	0.6 Liter	Haroon Medical & General Store Old Muzaffarabad Landhi Karachi#22.	27/1 Nazimabad#1 Karachi
79	Blue Danube	Bww-79	Karachi	15/03/2013	-	-	0.6 Liter	Shop#A-4, Indus Mehran Near Allied Bank Saudabad Chowrangi Malir Karachi	Blue Danube Laboratories
80	Dolphin	BWW-80	Karachi	16/03/2013	-	-	0.6 Liter	Haroon Medical & General Store Old Muzaffarabad Landhi Karachi#22.	Plot#1730(54, S.I.T. E ) Karachi #3 Pakistan



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81	OSLO	BWW-81	Karachi	15/03/2013	-	-	1.5 Liter	Al- Madina General Store,S-2 Area Near Hari Masjid Malir Karachi	Oslo International 14,Ramzan Chamber Dr.Bilmoria Street of 1.1 Chundigar Road Karachi
82	Best Water	BWW-82	Karachi	15/03/2013	-	-	1.5 Liter	Haroon Medical &General Store Old Muzaffarabad Landhi Karachi#22.	Paragon International 4/33,Sector 21,Korangi Industrial Area Karachi
83	Snow Drop	BWW-83	Karachi	15/03/2013	07/2013	-	1.5 Liter	M.Ishaq Jan Distributors Landhi Road Social Security Hospital Karachi #22.	Snow Drop B-63,Block17<F.B Area Karachi Pakistan
84	Al-Massafi	BWW-84	Karachi	15/03/2013	02/2013	-	1.5 Liter	M.Ishaq Jan Distributors Landhi Road Social Security Hospital Karachi #22.	Al-Masafi Foods Plot#S-3,S-4 Malir City Karachi
85	Crystal Maya	BWW-85	Karachi	15/03/2013	-	-	1.5 Liter	M.Ishaq Jan Distributors Landhi Road Social Security Hospital Karachi #22.	Off:B-221,228 Hub Balouchistan
86	Prime Pani	BWW-86	Karachi	15/03/2013	-	-	1.5 Liter	New Danish Bakery &General Store Indus Mehran Malir Karachi	S.A Brothers 137,P.E.C.H.S Block#6 Karachi
87	JEL	BWW-87	Karachi	15/03/2013	12/2013	-	1.5 Liter	Cold Corner,S-2 Area Malir Karachi	Mega fine Industries Plot#A-92,Malir Industrial Area Malir Karachi

### 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

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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	(µS/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

## PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



Arsenic ( Safe Limit : 10ppb)					
Sr. No	Brand Name	Code	City of Manufacturing	Unit	Results
1.	Unique Water	BWW-23	Multan	ppb	20
2.	Pan Pura	BWW-26	Burewala	ppb	18
3.	Oriel	BWW-27	Multan	ppb	43
4.	Kalash Water	BWW-29	Multan	ppb	64
5.	Premier Pure Water	BWW-31	Lahore	ppb	53
6.	Nation	BWW-33	Lahore	ppb	47
7.	Aqua Cool	BWW-37	Lahore	ppb	32
8.	Kallan Water	BWW-40	Lahore	ppb	20
9.	A Cool	BWW-43	Lahore	ppb	30
10.	Aqua National	BWW-45	Lahore	ppb	72
11.	Al-Shifa Water	BWW-47	Lahore	ppb	379
12.	Active	BWW-48	Lahore	ppb	35

Sodium ( Safe Limit : 50ppm)					
Sr. No	Brand Name	Code	City of Manufacturing	Unit	Results
1.	Premium Pure Water	BWW-31	Lahore	ppm	112
2.	Nation	BWW-33	Lahore	ppm	56
3.	Sunlay	BWW-78	Lahore	ppm	74

Potassium ( Safe Limit : 10 ppm)					
Sr. No	Brand Name	Code	City of Manufacturing	Unit	Results
1.	Vey	BWW-57	Karachi	ppm	13
2.	Standard	BWW-58	Quetta	ppm	13
3.	Vina	BWW-64	Sialkot	ppm	34

BACTERIOLOGICAL: (Total Coliforms & E Coli) (Safe Limit: 0/100ml)					
Sr. No	Brand Name	Code	Results		
			Total Coliforms (MPN/100ml)	E. Coli (MPN/100ml)	
1.	Nectar	BWW-02	2	Nil	
2.	Splash dew	BWW-06	21	Nil	
3.	Italian Crystal	BWW-09	2	Nil	
4.	Atlantis Premium Water	BWW-10	4	Nil	
5.	Hydr8	BWW-12	6	Nil	
6.	Fresco Healthy Water	BWW-22	21	Nil	
7.	Kallan Water	BWW-40	1600	Nil	
8.	Sparkling	BWW-50	27	Nil	
9.	Dannipur Water	BWW-55	2	Nil	
10.	Healthy	BWW-56	2	Nil	
11.	Vina	BWW-64	7	Nil	
12.	ECO Water	BWW-65	60	Nil	
13.	Rhine Blue	BWW-76	26	Nil	
14.	Orion	BWW-77	500	Nil	
15.	Sunlay	BWW-78	40	Nil	
16.	Blue Danube	BWW-79	6	Nil	
17.	Prime Pani	BWW-86	2	Nil	
18.	Jel	BWW-87	2	Nil	

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



PCRWR TESTING: SAFE BRANDS

Sr. No	Brand Name	Code	Quality (Safe/Unsafe)	
			Chemical	Microbiological
1.	Hydra	BWW-01	Safe	Safe
2.	Verbena	BWW-03	Safe	Safe
3.	Water Plus	BWW-04	Safe	Safe
4.	Venora	BWW-05	Safe	Safe
5.	Valley	BWW-07	Safe	Safe
6.	Deosai	BWW-08	Safe	Safe
7.	A-One	BWW-11	Safe	Safe
8.	AQUA SKY DROP	BWW-13	Safe	Safe
9.	Fresh Life	BWW-14	Safe	Safe
10.	Al-Saudia (Water Pack)	BWW-15	Safe	Safe
11.	Tripple five	BWW-16	Safe	Safe
12.	Himalaya Cool	BWW-17	Safe	Safe
13.	Mr. Water	BWW-18	Safe	Safe
14.	Sufi	BWW-19	Safe	Safe
15.	Zindagi Pani	BWW-20	Safe	Safe
16.	Atlantis Water	BWW-21	Safe	Safe
17.	Aqua 7	BWW-24	Safe	Safe
18.	Lite Aqua	BWW-25	Safe	Safe
19.	Blu Water	BWW-28	Safe	Safe
20.	Springley	BWW-30	Safe	Safe
21.	Hi-Fresh	BWW-32	Safe	Safe
22.	Murree Sparkletts	BWW-34	Safe	Safe
23.	Crystal Pure Water	BWW-35	Safe	Safe
24.	Oxigzyer	BWW-36	Safe	Safe
25.	Sparkle	BWW-38	Safe	Safe
26.	Gourmet	BWW-39	Safe	Safe
27.	Nestle	BWW-41	Safe	Safe
28.	Doce	BWW-42	Safe	Safe
29.	Aquafina	BWW-44	Safe	Safe
30.	Kinley	BWW-46	Safe	Safe
31.	Aqua Safe	BWW-49	Safe	Safe
32.	Aqua RO7	BWW-51	Safe	Safe
33.	Water Empire	BWW-52	Safe	Safe
34.	Mezban	BWW-53	Safe	Safe
35.	Ripple	BWW-54	Safe	Safe
36.	Noble	BWW-59	Safe	Safe
37.	Aqua Hygienic	BWW-60	Safe	Safe
38.	Excellent Water	BWW-61	Safe	Safe
39.	Isberg	BWW-62	Safe	Safe
40.	Rise Water	BWW-63	Safe	Safe
41.	Aqua Save	BWW-66	Safe	Safe
42.	Athar	BWW-67	Safe	Safe
43.	Sujo Natural	BWW-68	Safe	Safe
44.	Vividle	BWW-69	Safe	Safe
45.	NEBRASKA	BWW-70	Safe	Safe
46.	Natural Aqwah	BWW-71	Safe	Safe

## PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



47.	Moya Mineral Water	BWW-72	Safe	Safe
48.	Aquatic Fresh	BWW-73	Safe	Safe
49.	Aqua sure	BWW-74	Safe	Safe
50.	Aqua Splash	BWW-75	Safe	Safe
51.	Dolphin	BWW-80	Safe	Safe
52.	OSLO	BWW-81	Safe	Safe
53.	Best Water	BWW-82	Safe	Safe
54.	Snow Drop	BWW-83	Safe	Safe
55.	Al-Massafi	BWW-84	Safe	Safe
56.	Crystal Maya	BWW-85	Safe	Safe

### PCRWR TESTING: UNSAFE BRANDS

Sr. No	Brand Name	Code	Address/ Manufacturer	Quality (Safe/Unsafe)	
				Chemical	Microbiological
1.	Nectar	BWW-02	Plot#14/10 G-7 Markaz Islamabad	Safe	Unsafe
2.	Splash dew	BWW-06	Plot# 139,St# 9 Industrial Area 1-10/3 Islamabad	Safe	Unsafe
3.	Italian Crystal	BWW-09	G-9 Italian Plaza High Court Road Opp. Italian CNG Rawalpindi	Safe	Unsafe
4.	Atlantis Premium Water	BWW-10	Plot# 615,PO Fazaia Colony Near TCS Office Khanna Rawalpindi	Safe	Unsafe
5.	Hydr8	BWW-12	T-7 Sardar Arcade2,G-11 Markaz, Islamabad	Safe	Unsafe
6.	Fresco Healthy Water	BWW-22	Fresco Foods Jhang Road Kabir Wala	Safe	Unsafe
7.	Unique Water	BWW-23	M. Enterprises L.M.Q Road Multan, 03008637336	Unsafe	Safe
8.	Pan Pura	BWW-26	Pan Pura(Pvt)Ltd Tufailabad 253-E.B Burewala	Unsafe	Safe
9.	Oriel	BWW-27	Wasco International Bosan Road Multan	Unsafe	Safe
10.	Kalash Pure Water	BWW-29	Al-Rehman Enterprises Ali Hijwari Arcade Kutchery Road Multan	Unsafe	Safe
11.	Premier Pure Water	BWW-31	Zafir Industries 19-km Near Highnoon Laboratories Multan Road Lahore	Unsafe	Safe
12.	Nation	BWW-33	Hamza Brothers 9-km G.T Road Rachna Town Shahdara Lahore	Unsafe	Safe
13.	Aqua Cool	BWW-37	H-Enterprises 50-B Sabzazar Lahore	Unsafe	Safe
14.	Kallan Water	BWW-40	Help Line# 042-37490404 , 0323-4304302 Lahore	Unsafe	Unsafe
15.	A Cool	BWW-43	Ali Enterprises Multan Road sabzazar, Lahore	Unsafe	Safe
16.	Aqua National	BWW-45	Mili Brothers 8-km G.T Road Shahdra Lahore	Unsafe	Safe
17.	Al-Shifa Water	BWW-47	Bund Road Lahore Pakistan	Unsafe	Safe
18.	Active	BWW-48	Ali Enterprises 14 Main Road Sanda Lahore	Unsafe	Safe
19.	Sparkling	BWW-50	N.M Enterprises 051-5859591	Safe	Unsafe
20.	Danni pure Water	BWW-55	Pak National co. Lahore Tower Market Hakeem Habib Ullah Road Hyderabad	Safe	Unsafe
21.	Healthy Water	BWW-56	CS19/4 Near Fareed Plaza Liaquat Colony Industrial Area Hyderabad	Safe	Unsafe
22.	Vey	BWW-57	Fluid Technology Int, (Pvt) Ltd.424,Bhayani Centre Block-M North Nazimabad Karachi	Unsafe	Safe
23.	Standard	BWW-58	Standard (Private ) industries Ltd. Plot#48-B,Eastern Industrial Area	Unsafe	Safe

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			Quetta Pakistan		
24.	Vina	BWW-64	Al-Sultan Beverages Industrial Chapar Road Gull Bahar Kalan Sialkot.	Unsafe	Unsafe
25.	ECO Water	BWW-65	J&J Food Beverages Roras Road Naul Chowk Sialkot	Safe	Unsafe
26.	Rhine Blue	BWW-76	Main Road Saudabad Opp.Farooqi Masjid Karachi	Safe	Unsafe
27.	Orion	BWW-77	Orion Foods E-1,Suite# 2 Defance View Phase-II Karachi	Safe	Unsafe
28.	Sunlay	BWW-78	27/1 Nazimabad # 1 Karachi	Unsafe	Unsafe
29.	Blue Danube	BWW-79	Blue Danube Laboratories	Safe	Unsafe
30.	Prime Pani	BWW-86	S.A Brothers 137,P.E.C.H.S Block# 6 Karachi	Safe	Unsafe
31.	Jel	BWW-87	Mega fine Industries Plot# A-92,Malir Industrial Area Malir Karachi	Safe	Unsafe

### MARKET CONSISTENCY IN TWO NEIGHBORING QUARTERS

Sr. No	Consistent Brands	New Brands	Unavailable Brands
1.	Hydra	Water Empire	Aqvina
2.	Nectar	Splash Dew	Aab
3.	Hydr8	Tripple Five	Berg
4.	Verbena	Zindagi Pani	IVA Pure
5.	Water Plus	Atlantis Water	Safi
6.	Atlantis Premium Water	Mr. Water	Vital
7.	Valley	Fresco Healthy Water	Aqua Life
8.	Fresh Life	Unique Water	Sparkley
9.	Aqua Sky Drop	Kalash Water	Clear
10.	Italin Crystal	Hi-Fresh	Natural dew
11.	Mezban	Crystal	Khush Aab
12.	Venora	Aqua Cool	Vore
13.	Deosai	Athar	Fresh Pure
14.	Ripple	Sujo Natural	Aqua Prince
15.	A-One	Vividle	Mashmoom
16.	Aqua National	Aqua Sure	Al-Shalal
17.	Murree Sparkletts	Rhine Blue	Lock
18.	Nation	Orion	Pizu
19.	Premier Pure Water	Sunlay	Al-Sana
20.	Isberg	Blue Danube	Bliss Water
21.	Rise Water	Dolphin	Cool
22.	Vina	Oslo	Qaswa
23.	ECO	Best Water	Tahoor
24.	Aqua Splash	Snow Drop	New Everest
25.	Nebraska	Al-Massafi	Pineo
26.	Moya Mineral	Crystal Maya	Snow Valley
27.	Hamaliya cool	Prime Pani	Elixir
28.	Natural Aqwah	Jel	Sparkle water
29.	Active	Doce	Excellent Natural
30.	Aquafina	Al-Shifa	Al-Saudia
31.	Blu Water	Sparkling	
32.	Al-Saudia water pack	Danni Pure	
33.	Springley	Healthy Water	
34.	Kinley	Vey	
35.	Pan Pura	Standard	
36.	Sparkle	Noble	
37.	Aqua Ro7	Aqua Hygienic	

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38.	Oxigzyer	A-Cool	
39.	Sufi	Excellent	
40.	Gourmet	Aqua Safe	
41.	Oriel		
42.	Aqua 7		
43.	Lite Aqua		
44.	Kallan Water		
45.	Aquatic Fresh		
46.	Nestle		
47.	Aqua save		

### 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>	Hyperkalemia

### CONCLUSIONS

Sr. No	Item	Conclusion	
		No.	% age
1.	<b>Total No. of Brands Collected</b>	<b>87</b>	<b>-</b>
2.	<b>Overall safe brands</b>	<b>56</b>	<b>64</b>
3.	<b>No. of overall unsafe brands</b>	<b>31</b>	<b>36</b>
4.	<b>No. of Chemically safe brands</b>	<b>71</b>	<b>82</b>
5.	<b>No. of Chemically unsafe brands</b>	<b>16</b>	<b>18</b>
6.	<b>No. of Microbiologically safe brands</b>	<b>69</b>	<b>79</b>
7.	<b>No. of Microbiologically unsafe brands</b>	<b>18</b>	<b>21</b>
8.	<b>No. of Consistent brands in Market</b>	<b>47</b>	<b>54</b>
9.	<b>No. of brands disappeared from market</b>	<b>30</b>	<b>34</b>
10.	<b>No. of new brands</b>	<b>40</b>	<b>46</b>

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

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



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>	CO <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	NGVS	250	50	0.7	NGVS	0.3	10	10	250	10	Total Coli forms 0/100 ml	E-Coli 0/100 ml	
Detection Limits	-	0.2	0.02	0.287	-	2	1	5	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	ppm	ppm	ppb	MPN /100ml	MPN /100ml
Hydra	BWW-01	BDL	7.20	368	202	50	11	170	155	Nil	15	25	0.23	BDL	BDL	0.5	1	26	BDL	Nil	Nil	
Nectar	BWW-02	BDL	6.90	395	217	60	6	175	165	Nil	26	17	0.21	0.03	BDL	0.8	5	18	BDL	2	Nil	
Verbena	BWW-03	BDL	6.85	410	226	60	9	185	55	Nil	85	11	0.18	0.04	BDL	BDL	BDL	34	BDL	Nil	Nil	
Water Plus	BWW-04	BDL	6.53	408	224	40	12	150	25	Nil	93	16	0.31	BDL	BDL	0.6	BDL	20	1	Nil	Nil	
Venora	BWW-05	BDL	6.61	410	226	42	16	170	160	Nil	18	16	0.28	BDL	BDL	0.9	2	30	BDL	Nil	Nil	
Splash Dew	BWW-06	BDL	6.99	465	256	60	12	200	225	Nil	17	26	0.35	BDL	BDL	1.5	3	25	0.3	21	Nil	
Valley	BWW-07	BDL	6.88	362	199	48	11	165	180	Nil	13	17	0.19	0.05	BDL	0.8	3	8	BDL	Nil	Nil	
Deosai	BWW-08	BDL	6.58	353	194	48	5	140	55	Nil	70	17	0.49	BDL	BDL	BDL	BDL	14	BDL	Nil	Nil	
Italian Crystal	BWW-09	BDL	6.80	270	149	32	5	100	60	Nil	30	23	0.15	BDL	BDL	0.3	1	35	0.5	2	Nil	
Atlantis Premium Water	BWW-10	BDL	6.60	235	129	30	9	110	70	Nil	40	3	0.11	0.03	BDL	BDL	0.4	3	BDL	4	Nil	
A-One	BWW-11	BDL	7.01	329	181	56	4	155	35	Nil	78	9	0.12	BDL	BDL	BDL	BDL	26	BDL	Nil	Nil	
Hydr8	BWW-12	BDL	7.22	338	186	52	5	150	140	Nil	18	11	0.22	BDL	BDL	0.6	1.5	20	BDL	6	Nil	
Aqua Sky Drop	BWW-13	BDL	7.02	305	168	40	10	140	115	Nil	19	10	0.15	BDL	BDL	0.4	1.5	32	BDL	Nil	Nil	
Fresh Life	BWW-14	BDL	7.02	305	168	42	10	145	110	Nil	20	10	0.17	BDL	BDL	0.4	1.5	30	BDL	Nil	Nil	
Al-Saudia (Water Pack)	BWW-15	BDL	6.51	356	196	48	7	150	50	Nil	72	7	0.07	0.04	BDL	3.7	0.7	34	BDL	Nil	Nil	

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

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Tripple five	BWW-16	BDL	7.35	349	192	40	10	140	70	Nil	52	16	0.17	0.06	BDL	1.1	2.3	40	BDL	Nil	Nil
Himalaya Cool	BWW-17	BDL	6.58	260	143	40	4	115	90	Nil	11	13	0.25	BDL	BDL	1.9	BDL	33	0.4	Nil	Nil
Mr. Water	BWW-18	BDL	7.09	330	182	16	15	100	55	Nil	18	34	0.23	BDL	BDL	1.0	BDL	83	0.2	Nil	Nil
Sufi	BWW-19	BDL	7.19	376	207	52	5	150	55	Nil	80	13	0.13	0.03	BDL	BDL	BDL	24	BDL	Nil	Nil
Zindagi Pani	BWW-20	BDL	7.42	349	192	34	11	130	60	Nil	36	30	0.16	0.05	BDL	0.3	BDL	72	0.6	Nil	Nil
Atlantis Water	BWW-21	BDL	7.02	282	155	36	5	110	55	Nil	61	20	0.07	0.04	BDL	BDL	BDL	20	BDL	Nil	Nil
Fresco Healthy Water	BWW-22	BDL	7.35	508	179	48	10	160	165	Nil	29	46	0.37	BDL	BDL	1.6	BDL	76	2	21	Nil
Unique Water	BWW-23	BDL	7.49	376	207	16	28	155	150	Nil	10	49	0.14	BDL	BDL	0.8	BDL	50	20	Nil	Nil
Aqua 7	BWW-24	BDL	6.78	486	267	52	10	170	55	Nil	108	31	0.11	0.05	BDL	0.4	BDL	46	0.7	Nil	Nil
Lite Aqua	BWW-25	BDL	7.30	426	234	56	2	150	110	Nil	32	33	0.21	BDL	BDL	1.2	BDL	80	4	Nil	Nil
Pan Pura	BWW-26	BDL	6.85	338	186	48	7	150	100	Nil	45	16	0.30	0.03	BDL	0.2	BDL	29	18	Nil	Nil
Oriel	BWW-27	BDL	7.28	275	151	36	5	110	105	Nil	7	18	0.18	BDL	BDL	0.5	BDL	21	43	Nil	Nil
Blu Water	BWW-28	BDL	7.30	382	210	42	15	165	85	Nil	64	17	0.14	BDL	BDL	0.8	BDL	48	2	Nil	Nil
Kalash Water	BWW-29	BDL	7.20	732	403	10	12	300	170	Nil	60	34	0.44	BDL	BDL	2.4	BDL	150	64	Nil	Nil
Springley	BWW-30	BDL	7.10	515	283	80	7	230	200	Nil	60	21	0.18	BDL	BDL	0.3	BDL	17	0.6	Nil	Nil
Premier Pure Water	BWW-31	BDL	7.29	860	473	72	9	215	330	Nil	50	112	0.42	BDL	BDL	1.3	BDL	94	53	Nil	Nil
Hi-Fresh	BWW-32	BDL	7.33	265	146	36	5	110	90	Nil	25	14	0.17	0.04	BDL	BDL	1	15	0.3	Nil	Nil
Nation	BWW-33	BDL	7.19	480	264	40	10	140	215	Nil	16	56	0.36	BDL	BDL	1.2	BDL	32	47	Nil	Nil
Murree Sparkletts	BWW-34	BDL	7.48	349	192	40	12	150	160	Nil	13	16	0.19	0.03	BDL	0.9	2	13	0.6	Nil	Nil
Crystal Pure Water	BWW-35	BDL	6.74	380	209	44	10	150	65	Nil	60	30	0.13	0.05	BDL	0.3	2.8	36	BDL	Nil	Nil
Oxigzyzer	BWW-36	BDL	7.35	426	234	40	10	140	140	Nil	35	43	0.23	BDL	BDL	1.6	BDL	45	1.5	Nil	Nil
Aqua Cool	BWW-37	BDL	7.39	295	162	42	9	140	150	Nil	8	12	0.42	BDL	BDL	2.4	BDL	22	32	Nil	Nil
Sparkle	BWW-38	BDL	7.12	262	144	49	7	140	35	Nil	66	3	0.15	BDL	BDL	BDL	BDL	09	1	Nil	Nil

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

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Gourmet	BWW-39	BDL	7.28	375	206	40	12	150	50	Nil	78	18	0.12	BDL	BDL	BDL	BDL	23	0.2	Nil	Nil
Kallan Water	BWW-40	BDL	6.98	340	187	44	7	140	150	Nil	11	18	0.28	0.06	BDL	3.0	BDL	30	20	1600	Nil
Nestle	BWW-41	BDL	6.99	349	192	40	10	140	30	Nil	64	9	0.34	0.04	BDL	BDL	BDL	28	4	Nil	Nil
Doce	BWW-42	BDL	7.04	430	237	42	18	180	95	Nil	63	21	0.20	BDL	BDL	0.9	BDL	53	0.3	Nil	Nil
A Cool	BWW-43	BDL	7.45	416	229	40	12	150	170	Nil	16	30	0.46	0.03	BDL	3.2	BDL	32	30	Nil	Nil
Aquafina	BWW-44	BDL	7.15	209	115	BDL	19	80	35	Nil	23	15	0.08	BDL	BDL	1.0	BDL	45	BDL	Nil	Nil
Aqua National	BWW-45	BDL	7.52	275	151	42	9	140	125	Nil	05	09	0.32	BDL	BDL	1.7	BDL	24	72	Nil	Nil
Kinley	BWW-46	BDL	6.78	522	287	80	7	230	100	Nil	94	18	0.19	BDL	BDL	4.8	BDL	34	5.5	Nil	Nil
Al-Shifa Water	BWW-47	BDL	6.80	339	186	56	5	160	150	Nil	16	15	0.47	0.05	BDL	2.6	BDL	8	379	Nil	Nil
Active	BWW-48	BDL	7.38	291	160	40	10	140	125	Nil	09	13	0.19	0.03	BDL	2.3	BDL	18	35	Nil	Nil
Aqua Safe	BWW-49	BDL	7.30	426	234	44	12	160	120	Nil	40	35	0.13	BDL	BDL	1.6	BDL	50	10	Nil	Nil
Sparkling	BWW-50	BDL	6.85	520	286	32	15	140	130	Nil	77	47	0.17	BDL	BDL	1.3	BDL	27	9	27	Nil
Aqua RO7	BWW-51	BDL	7.02	300	165	40	5	120	85	Nil	32	20	0.12	BDL	BDL	BDL	BDL	30	1	Nil	Nil
Water Empire	BWW-52	BDL	6.88	418	230	58	7	175	35	Nil	87	14	BDL	0.04	BDL	0.3	BDL	29	0.2	Nil	Nil
Mezban	BWW-53	BDL	6.98	352	199	42	9	140	90	Nil	50	12	0.31	0.05	BDL	0.3	0.5	34	BDL	Nil	Nil
Ripple	BWW-54	BDL	7.20	340	187	44	12	160	55	Nil	63	11	BDL	BDL	BDL	1.6	BDL	43	BDL	Nil	Nil
Danni Pure Water	BWW-55	BDL	7.25	552	304	64	7	190	70	Nil	76	24	0.49	BDL	BDL	6.5	4	77	BDL	2	Nil
Healthy Water	BWW-56	BDL	7.02	344	189	40	10	140	65	Nil	63	13	0.37	BDL	BDL	4.0	BDL	37	BDL	2	Nil
Vey	BWW-57	BDL	7.10	313	172	40	7	130	55	Nil	60	09	0.32	BDL	BDL	13	BDL	20	BDL	Nil	Nil
Standard	BWW-58	BDL	6.99	355	184	40	10	140	50	Nil	55	10	0.06	0.03	BDL	13	BDL	45	0.2	Nil	Nil
Noble	BWW-59	BDL	6.90	272	150	40	5	120	50	Nil	16	10	0.18	BDL	BDL	3.8	2	54	0.3	Nil	Nil
Aqua Hygienic	BWW-60	BDL	7.19	281	155	42	5	125	35	Nil	50	11	0.04	BDL	BDL	0.5	BDL	35	BDL	Nil	Nil
Excellent Water	BWW-61	BDL	7.29	490	270	36	24	190	140	Nil	23	29	0.7	BDL	BDL	0.8	5	56	0.4	Nil	Nil
Isberg	BWW-62	BDL	6.87	305	168	36	12	140	90	Nil	34	09	0.30	0.04	BDL	3.2	BDL	34	6.5	Nil	Nil
Rise Water	BWW-63	BDL	7.28	364	200	40	15	160	55	Nil	76	12	0.38	0.03	BDL	0.2	BDL	33	5	Nil	Nil

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

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PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



Vina	BWW-64	BDL	7.06	318	175	26	13	120	70	Nil	23	03	BDL	BDL	BDL	<b>34</b>	BDL	50	0.1	<b>7</b>	Nil
ECO Water	BWW-65	BDL	7.18	330	182	40	10	145	120	Nil	24	34	BDL	BDL	BDL	0.3	BDL	47	1	<b>60</b>	Nil
Aqua Save	BWW-66	BDL	6.51	331	182	40	15	160	35	Nil	80	BDL	BDL	BDL	BDL	2.4	BDL	30	BDL	Nil	Nil
Athar	BWW-67	BDL	7.08	448	246	36	10	130	120	Nil	53	50	0.17	BDL	BDL	1.6	BDL	46	6	Nil	Nil
Sujo Natural	BWW-68	BDL	6.89	438	241	60	6	175	100	Nil	55	16	0.33	0.07	BDL	3.9	BDL	55	0.2	Nil	Nil
Vividle	BWW-69	BDL	7.20	346	190	40	12	150	75	Nil	69	18	0.25	0.04	BDL	0.6	BDL	19	BDL	Nil	Nil
Nebraska	BWW-70	BDL	7.28	707	389	60	39	310	155	Nil	78	13	0.34	BDL	BDL	0.2	20	32	BDL	Nil	Nil
Natural Aqwah	BWW-71	BDL	7.5	434	239	56	17	210	170	Nil	15	17	0.42	BDL	BDL	1.6	5	32	0.6	Nil	Nil
Moya Mineral Water	BWW-72	BDL	7.29	237	130	36	5	110	60	Nil	31	07	0.04	0.05	BDL	0.5	1.7	12	BDL	Nil	Nil
Aquatic Fresh	BWW-73	BDL	7.05	215	118	30	6	100	80	Nil	16	07	0.12	BDL	BDL	0.7	2.7	15	BDL	Nil	Nil
Aqua sure	BWW-74	BDL	7.15	584	321	48	41	290	285	Nil	22	25	0.42	0.03	BDL	2.0	BDL	48	1	Nil	Nil
Aqua Splash	BWW-75	BDL	7.30	347	191	40	10	140	60	Nil	70	13	0.19	BDL	BDL	0.3	2.3	17	BDL	Nil	Nil
Rhine Blue	BWW-76	BDL	7.29	246	135	20	10	90	50	Nil	45	19	0.16	BDL	BDL	4.9	1	13	BDL	<b>26</b>	Nil
Orion	BWW-77	BDL	7.21	248	136	32	5	100	50	Nil	40	19	0.35	BDL	BDL	1.2	3	10	BDL	<b>500</b>	Nil
Sunlay	BWW-78	BDL	6.79	587	323	32	17	150	170	Nil	66	<b>74</b>	1.20	BDL	BDL	2.6	4	49	BDL	<b>40</b>	Nil
Blue Danube	BWW-79	BDL	7.35	278	153	36	5	110	50	Nil	62	12	0.27	BDL	BDL	7.7	1	10	BDL	<b>6</b>	Nil
Dolphin	BWW-80	BDL	7.1	348	191	26	13	120	55	Nil	75	33	0.22	0.04	BDL	1.3	4	11	BDL	Nil	Nil
OSLO	BWW-81	BDL	7.42	274	151	36	2	100	50	Nil	32	14	0.19	0.03	BDL	0.5	2	33	BDL	Nil	Nil
Best Water	BWW-82	BDL	7.20	478	263	28	19	150	130	Nil	56	45	0.70	BDL	BDL	4.0	7	30	BDL	Nil	Nil
Snow Drop	BWW-83	BDL	7.08	326	179	40	10	140	45	Nil	69	08	0.23	BDL	BDL	0.5	BDL	27	BDL	Nil	Nil
Al-Massafi	BWW-84	BDL	7.42	326	179	BDL	34	140	40	Nil	14	10	0.28	BDL	BDL	1.6	2	97	BDL	Nil	Nil
Crystal Maya	BWW-85	BDL	6.60	326	179	BDL	34	140	45	Nil	17	11	0.46	0.03	BDL	1.8	2	93	BDL	Nil	Nil
Prime Pani	BWW-86	BDL	7.35	238	131	26	9	100	45	Nil	50	17	BDL	BDL	BDL	1.2	1.2	9	BDL	<b>2</b>	Nil
JEL	BWW-87	BDL	7.20	281	155	26	9	100	35	Nil	56	20	0.20	BDL	BDL	1.2	2	15	BDL	<b>2</b>	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.

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