

National Water Supply & Drainage Board
Annual Chemical Quality of Water - 2009

RSC - Western South

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Kalutara	Mathugama	2	1. Colour=40 Pt.Co, Treated Water, Watthwa. 2. Colour=70 Pt.Co, Turbidity=9 NTU, Pump House.	Informed OIC. To clean. Treated water sump.
	Payagala	1	Colour=50 Pt.Co, Turbidity=10 NTU, Pump House, Maggona.	Informed OIC. To clean. Treated water sump.
Total		3		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
HORANA / PANADURA	Dehiwala	7	1. Turbidity=10, Stock tank. 2. Turbidity=14, Tap at NWSDB Office. 3. Turbidity=20, Tap, No.95, Opposite, Co-operative stores. 4. Turbidity=24, Tap.Opposite to MOH Office. 5. Turbidity=10, OIC Office, Kohuwala 6. Turbidity=18, Tap, Severage office, Attidiya 7. Fe= 1.2 mg/l, Tap No. 40/19, Karundugaha Mawatha, Bellantara, Dehiwala	Instructed to wash out the line & clean the OHT of the house owner.
	Ingiriya	4	1. Turbidity=10, Stock tank. 2. Turbidity=14, Tap at NWSDB Office. 3. Turbidity=20, Tap, No.95, Opposite, Co-operative stores. 4. Turbidity=24, Tap.Opposite to MOH Office.	High turbidity was recorded due to heavy rain. Lines were flushed out.
Total		11		

RSC - Western North

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Gampaha	Meerigama	2	1. Colour=50, H H Tap, NO.129, Vijayarajadahana 2. Colour=50, S P Negombo Road	Treatment plant improvements are suggested
Total		2		

RSC - Central

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Kandy Central	Gampola Watta	3	1. Colour=106, Turbidity=27, Treated Water 2. Colour=138, Turbidity=184, Treated water Service Reservoir. 3. Colour=44, Turbidity=9, Treated Water (Service Reservoir)	* Due to heavy rain * Filtration System should be required
	Kadugannawa	3	1. Colour=121, Turbidity=68, Treated Water 2. Colour=62, Turbidity=34, Tap at the OIC Office 3. Colour=121, Turbidity=68, Treated Water	Treated water tank should be cleaned.
	Udu/Yatinuwara	1	Colour=45, Upul stores, Gannoruwa Rd	Filter media to be replaced
	Koka Oya	4	1. Colour=247, Turbidity=34, Total Iron=1.55, Treated Water 2. Colour=66, Turbidity=9, Treated water, Service Reservoir 3. Turbidity=192 NTU. Total Iron=5.5 mg/l, Treated Water 4. Colour=63, Turbidity=16, Treated Water (Service Reservoir)	Filter Media to be filled (Tender has been awarded)
	Kotagala	1	Colour=38, Treated Water Reservoir	Treated Water sump should be cleaned
	Upper Hantana	1	Colour=31, Free NH3=0.097, Treated Water Service Reservoir ;	Treatment process to be reconstructed
	Hatton	2	1. Colour=64, Turbidity=9, Treated water 2. Colour=57, Treated Water	Under construction
	Ethgala	4	1. Colour=238, Turbidity=52, Total Fe=1.25 2. Colour=39, Treated Water (Pump Hose) 3. Colour=60, Turbidity=09, Treated Water (Pump House) 4. Colour=68, Turbidity=8, Treated Water(Pump House)	* Only Chlorination, No other treatment.
	Mahakanda	2	1. Colour=52, Turbidity=14, Gal Bangalawa 2. Colour=36, Turbidity=9, Fe=1.59, Gal Bangalawa	Treated Water sump should be cleaned
	Dartrie	1	Colour=128, Turbidity=27, Total Iron=1.14	This is due to power failure. (Now problem is ok)
Total		22		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Kandy North	Alawathugoda	1	Nitrite=0.1ppm, Treated water	
	Polgolla	1	Clear Water Sump Colour = 23	Raw Water Quality is very bad.
	Hadeniya	7	1. Service Reservoir Colour = 258, Iron = 5.65 2. Colour = 96, Turbidity=12, Iron=2.63 3. Colour = 101, Turbidity = 11.7, Treated Water at plant 4. Colour = 206, Turbidity = 30.4, Treated Waer 5. Colour = 81, Turbidity = 11.4, Fe = 1.07, treated water 6. Colour = 45, Treated water. 7. Colour = 71, Treated water.	Treatment plant improvements are suggested.
	Matale	9	1. Clear Water Sump Colour = 15 2. Colour = 36, S/R 3. Residual Aluminium = 0.3ppm 4. Colour = 38, Turbidity = 13.2, Treated Water at plant 5. Colour = 84, Turbidity = 11.3, Hospital junction 6. Colour = 210, Turbidity = 24.6, Treated water in sump. 7. Colour = 155, Turbidity = 8.84, Treated Water 8. Colour = 95, Turbidity = 16.8, Al = 0.241 Treated Water 9. Colour = 45, Turbidity = 8.57, Treated Water	*Treatment plant modifications are suggested * Instructions were given to the operator for proper dosing. * Plant is overloaded. Plant capacity should be increased
	Galagedara	6	1. Colour = 179, Turbidity = 25.3, Treated Water at Plant 2. Colour = 70, Pathirana, 2/463, Treated Water 3. Colour = 47, Pathirana, 2/463, Treated Water 4. Colour = 54, Treated Water, Hospital Junction 5. Colour = 158, Fe = 2.09, Treated water. 6. Colour = 60, Treated water	Treatment Plant Improvements are suggested
	Udatenna	6	1. Colour = 91, Turbidity = 22.9, Treated Water 2. Colour = 135, Turbidity = 21.2, Treated Water 3. Colour = 50, Turbidity = 12.3, Treated Water 4. Colour = 68, Treated water 5. Colour = 50, Turbidity = 12.3, Treated Water	Treatment Plant Improvements are suggested
	Ukuwela	7	1. Clear water sump Colour = 40 2. Colour = 39, Treated Water 3. Colour = 160, Turbidity = 28.2, Treated Water 4. Colour = 87, Turbidity = 16.1, Treated Water 5. Colour = 152, Turbidity = 10.5, Treated water 6. Colour = 600, Turbidity = 81.7, Treated water 7. Colour = 61, Turbidity = 12.3, Treated Water	Treatment plant improvements are suggested
	Dambulla	2	1. Colour = 64, Turbidity = 11.8, Treated Water plant 2. Al = 0.3ppm	*OIC was instructed to clean the clear water sump *Instructions were given to monitor alum dosing closely.
	Pussalla	1	Nitrite = 0.056ppm, Treated Water	Need to recheck
	Kondadeniya	1	Colour = 34, S/R	Cleaning the Reservoir
Total				

RSC- Sabaragamuwa/Uva

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Kegalle	Gonagaldeniya	1	Turbidity = 11.6, Treatment Plant. Gonagaldeniya	High Turbidity, to be implimented. Treatment plant should be improved.
	Dehiowita	1	Turbidity = 11.4	
Total		2		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
BANDARAWELA	Ambagasdowa	7	Colour=38-54, Turbidity= 9-12, Distribution system	Full treatment is needed.
	Amunukele	1	Colour=35, Turbidity=21, tap at Sumith Bandara's shop	Filtration system should be introduced
	Badulla	22	Colour=34-68, Turbidity =9-60, Distribution	Full treatment is needed.
	Bandarawela	8	Colour=37-172, Turbidity=16-42, Distribution system	RCI=Nil, Lack of chlorine dosage
	Bandarapura	2	1. Colour=50, H H Tap, NO.129, Vijayarajadahana 2. Colour=50, S P Negombo Road	Full treatment is needed.
	Bogahakumbura	3	Colour=37-52, Turbidity=9-14, Stock tank.	Full treatment is needed.
	Boralanda	2	Colour=32-40, Turbidity=10	
	Diyatalawa	2	colour 30-82 Tap at odit Quartes & Trubidity =16	Floculator is needed
	Giradurukotte	7	Colour=36-48, Turbidity=11-16, Stock tank & Distribution	Full treatment is needed.
	Haldummulla	3	Colour=39-52, Turbidity=16, Distribution	Full treatment is needed.
	Kandeketiya	3	Colour=35-61, Turbidity=11-12, Stock tank & Distribution	Full treatment is needed.
	Keppetipola	7	Colour=36-62, turbidity=9-15, Stock tank & Distribution	Full treatment is needed.
	Lunuwatta	14	Colour=33-414 turbidity=10-62, Fe-1.34 Stock tank & Distribution	*Filtration System should be introduced. *Full treatment is essential
	Medawela	8	Colour =43-294 Turbidity=10-58, Fe=1.14 Stock tank& Distribution Sytem	* Distribution line should be washed * Full treatment is needed
	Welimada	0	Colour=45-460, Turbidity=10-80, stock tank	Full treatment is needed.
Seelatenna	4	Colour=32-46, Stock tank & Distribution system	Full treatment is needed.	
Total		93		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
MONARAGALA	Monaragala	1	NO ₂ =0.04, Stock Tank	Surface run off due to heavy rain. (Catchment Protection)
	Siyambalan duwa	3	Colour=42-52, NO ₂ =0.04, Stock tank	Surface run off due to heavy rain.
	Okkampiyiya	2	1. Nitrite=0.18, Stock Tank 2. Nitrite=0.17, Tap at NWSDB Office.	Dry season
	Nakkala	3	1. Colour=52, Stock Tank 2. Colour=42, Tap at NWSDB Office 3. Colour=46, Tap at Nevil Motors	
	Buttala	4	1. Alkalinity=478, Stock Tank 2. Alkalinity=468, Tap at NWSDB Office 3. Alkalinity=482, Tap at Bus Stand 4. Alkalinity=480, Tap at Rajamaha Vihara	
	Badalkumbura	1	Alkalinity=402, Tap at NWS&DB	
Total		14		

RSC - North Central/North

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Jaffna	Karainagar	2	1. EC=1906, Alkalinity=426, Tap 1 2. EC=1914, Alkalinity=432, Tap 2	
	Araly	2	1. Alkalinity=430, Conductivity=2989, Tap 1 2. Alkalinity=416, Conductivity=2978, Tap 2	New source or treatment is needed.
	Vaddukoddia	6	1. Alkalinity=430, Conductivity=2560, Dug Well 1 - Surface Water 2. Hardness=672, Alkalinity=442, Conductivity=3570, Dug Well 1-Bottom. 3. Alkalinity=422, Conductivity=2910, Dug Well 2-Surface. 4. Hardness=642, Alkalinity=436, Conductivity=3470, Dug Well 2-Bottomed 5. Alkalinity=423, Hardness=632, Conductivity=3564, Cistern tank 1 6. Alkalinity=426, Hardness=636, Conductivity=3569, Cistern tank 2	New source or treatment is needed.
Total		10		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Vavunia	Mannar	1	Colour=48, Thottakadu Well	During the dry season.
Total		1		

RSC- North Western

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
KURUNEGALA	Kurunegala	7	Colour= 35-122, Turbidity= 14-23, Distribution System	Informed OIC to correct Alum dose.
	Polgahawela	41	Colour =40-416, Turbidity =10-105, Mn=1.2, NH3=0.39, Fe=1.02, sump & Distribution system	Full treatment facility is proposed.
	Alawwa	8	1. Colour=41, Turbidity =10, Head Work 2. Colour=46, Turbidity=16, Disitribution End 3. Colour=165, Turbidity=33, Mn=0.9, Overhead tank. 4. Colour=274, Turbidity=56, Distribution end 5. Colour= 102, Turbidity=17, Tap at site office 6. Colour=51, Turbidity=9, Distribution end 7. Colour=72, Turbidity=14, Sump 8. Colour=47, Tap at Site Office.	* Colour & turbidity problem is almost low compared to the reiny period . Construction work of the Package plant is in design stage. *Installation work of the Package treatment plant is in final stages. Water Quality can be improved after that. *Package plant is now in operation. Plant performance should be closely monitored programme & required equipments send to the site for the above programme.
	Pannala	7	Colour=44-97, Turbidity=11-23, over head tank & Distribution system	Informe OIC to clean the overhead tank.
	Ambanpola	3	1. Alkalinity=524, NH3=1.24, Hardness=812, Water tank 2. NH3=1.04, Tap at Picture Place, Ambanpola. 3. Hardnedd=736, NH3=1.32, Alkalinity=448, Water tank	* Hardness can be removed by chemical treatment and filtration at elevated pH levels (pH>10) or this water can be mixed with less hardness water to reduce the concentration. Allowing continuous flowing of water in the distribution lines throughout the time will prevent the scale forming. * Action taken to further improvement. Gas chlorinator is already installed.
	Galgamuwa	13	Colour=59-262, Turbidity=11-54, Sump & Distribution end	Full Treatment is needed
	Udagama	6	F=1.9-2.0, Alkalinity =472, Water tank	Fluoride filters are recommended.
	Wariyapola	0	colour=83-227, Turbidity=15-44, over head tank , Distribution system	Reason for the high colour and turbidity is due to excessive sediment inflow after erosive rains.
	Hettipola	5	Colour=82-186, Turbidity=16-34, Fe=1.79, Mn=0.7, Sump & Distribution system	
	Guriulla	31	Colour=33-262, Turbidity=12-48, Sump & Distirubution	Latterl filtration is not sufficient.
	Padeniya	5	NH3=0.35-0.5, F= 1.8-2.0, Hardness=516, Distribution system	Proposed to intigrate this distribution with Wariyapola Schme. Dilution will reduced the existising high fluoride & ammonia to desiarable levels.
	Dambadeniya	19	Colour=33-110, Turbidity=12-19, Fe= 0.61-1.47, Sump & Distribution	full Treatment is needed. Iron & Manganase removal method is required
	Nikaweratiya	11	Colour=50-334, Turbidity=12-75, Fe=1.64, Distribution systme	Conventional Treatment plant is under constructicon. Full treatment is needed.
	Narammala	3	Hardness= 416, Colour=47-49, Distribution end.	Sump & Distribution line to be clean.
Wannigama	7	colour =128-384, Turbidity=25-72, F=0.9-1.1, Mn=0.6-2.0, alkalinity=416, overhead tank & distribution system, over head tank & distribution system.	Treatment improvement is required.	
Ogodapola	2	Colour=111-125, Turbidity=22-26, Distribution system	Treatment facility of this scheme should be upgraded	
Total		168		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
PUTTLAM	Puttlam	12	NH3=0.38-0.56, Hardness=620, Colour=31-45	filtration improvements are needed.
	Anamaduwa	3	Colour=33-51, Turbidity=15-16, sump	Informed OIC to clean the sump.
	Dankotuwa	6	Colour=40-63, Turbidity=9-12, Distribution System	Over head tank should be cleaned. Informed OIC to adjust the alum dose.
	Madampe	3	PO4=4.8-4.31, sump & distribution end	Lines have already flushed. Nessesary actions will be taken after carrying out a further analysis during the next sampling programme. Informed OIC.
	Andigama	2	Colour=39-134, Turbidity=20, Distribution end.	Informed OIC. Need treatment improvements
	Nattandiya	9	Coloru=32-76, turbidity=9-14, Distribution end	Treatment improvements are needed.
	Wennappuwa	6	pH=4.57-4.8, sump & distribution end	simple aeration system should be introduced.
	Chilaw	5	Colour=60, NH3=0.37-0.69, Sump, Fe=1.06- 1.88	Aeration & Filtration should be improved.
	Kakkapalliya	3	Colour=68-93, Turbidity=12-80, Mn=0.6, Distribution system	Informed OIC to clean the sump.
	Karukkapanne	7	Colour=38-61, turbidity=10-48, NH3=0.36-0.55 Distribution end	Treatment improvements are suggested
	Rahamath Nagar	12	Colour=35-293, turbidity=13-52, Mn=0.7-1.2, Fe=1.21, sump & distribution system	Water quality will be improved with new treatment plant.
Total		68		

RSC- Southern

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Galle	Galle wss	1	pH=9.4, Distribution	pH correction
	Ahangama	4	pH=9.1-9.5, Distirbution System	The line should be washed.
	Wakwella TP	1	pH=4.4,9.2 Treatment plant	pH correction
Total		6		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Matara	Deniyaya	12	Colour 10-80 , Turbidity=22 & Iron content = 1.2	Full treatment is needed
	Karagoda/Uyangoda	8	Iron content = 1.6 ppm	full treatment is needed.
Total		20		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Hambantota	Hungama/ Ranna	5	Colour=40-80, Turbidity=10-15.1, treatment plant	Filters are not in good working condition. Filter sand should be added. Informed Manager & OIC.
	Katuwana	4	Colour=40-50, turbidity=11-14, Distribution	Filter system is needed. Informed Manager & OIC
	Kataragama	7	Colour=60-300, Turbidity=40-70, distribution system	It is difficult to treat raw water of Uniha Plant, when turbidity of raw water is higher than 250NTU.
	Walasmulla	2	Colour=40-50, turbidity=8-12, Distribution	No plant technician. Pump operators are running the plant.
	Bundala	11	Colour=40-100, Turbidity= 8.7-124, distribution sytem	Filters are not in good working condition. Filter sand should be added. Informed Manager & OIC.
	Lunugamvehera / Kirindi-Oya	18	Colour=40-100, turbidity=9.3-22.1 Treatment plant	Filters are not working properly. Filter meadia is being replaced. Informed Manager & OIC
	Muruthawela	1	Colour=60, Turbidity=14, Treated Water	Turbidity of raw water is high. Turbidity was removed.
Total		48		

RSC - East

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
Trincomalee	Seruvila	2	1. Colour=50, Turbidity=8.13, Treatment plant, Seruvila 2. Colour=45, Temple Rd, Seruvila	
Total		2		

Region	Scheme	Number of Sample Unsatisfactory	Sampling Point & Description	Reasons for Unsatisfactory / Remedial measures
AMPARA	CBO	3	Colour=49- 142, Turbidity=17.8 - 31.9, Fe=2.35- 2.58 , Tower	Informed regional Epidermilogist
	Ninthanvelly	21	Colour=45-321, Turbidity=10-107, Fe=1.036-7.06, Wells	* Full treatment is needed *Iron removal method is essential
	Kathankudy	4	Colour=39-148, Turbidity=23.8, Fe=1.04-2.14	* Iron removal plant is to be introduced * Instructions were given to clean the pumping line & wells
	Pottuvil Ullai	5	Colour =176-298, Turbidity=65.3-290, Fe=2.07-2.17	Full treatment is needed
	Damana	6	Colour=49-119, Turbidity=10.9-35.2, Treatment Plant & Tower	Raw water has much colour & turbidity due to the cleaning of the channels & package filter not working.
	Inginiyagala	3	Colour=85-778, Turbidity=29.2-128, Fe=1.1-2.56, Tower & Distribution system	Water is collected from bottom. Action is taken to get water from the top.
	Rajagalathenna	2	Colour=40-70, Phosphate=4.5, Fe=1.2	Full treatment is needed
Total		44		