

現地再委託

- 水質試験 -

WATER QUALITY SURVEY
FOR
PREPARATORY STUDY
FOR
THE PROJECT
FOR
ZANZIBAR URBAN WATER SUPPLY DEVELOPMENT
IN
THE REVOLUTIONARY GOVERNMENT OF ZANZIBAR

December, 2002

Saatani Water Laboratory

WATER ANALYSIS REPORT

20 SAMPLES ANALYSED

- CHEMICAL AND PHYSICAL QUALITY:

THREE METHOD USED:

- 1 ATOMIC ABSORPTION SPECTROPHOTOMETER
- 2 PHOTOMETER
- 3 TITRATION

- BACTERIOLOGICAL QUALITY:

- 1 MEMBRANE FILTRATION METHOD

NOTE:

CHROMIUM – DETECTION LEVEL = 0.1

TOTAL IRON – DETECTION LEVEL = 0.05

BELOW THAT LEVEL = TRACE

SAATENI WATER LABORATORY

Date 29/11/2002

READING/ TEST RESULTS

	KIANGA	WELEZO	MCHOMEIKE M/MOHARRE	MBINENI	KABURI KIKOMBE	MINARA MBAO	CHUNGA	ICWITO LIPELE
Appearance	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Odour	less	less	less	less	less	less	less	less
Colour	less	less	less	less	less	less	less	less
Turbidity	NO	NO	NO	NO	NO	NO	NO	NO
Temperature	32.2°C	33.2°C	33.1	31.8	31.8	32	33.2	33.3
pH	6.5	6.6	6.9	7.1	6.7	6.5	6.9	7.4
Conductivity	407 μ S/cm	422	396	487	696	714	437	452
TDS	207 mg/L	212	197	244	348	356	218	225
Alkalinity	—	—	—	—	—	—	—	—
Hardness	85	36	80	90	135	140	110	120
Chloride	48.212	39	34.032	57.43	170.16	176.2	27.651	31.2
Salinity	84.73	68.53	60.0	101	299.05	309.6	48.6	55
Nitrite	0.0099	0.001	0.0132	0.0198	0.0363	0.0924	0.0231	0.0099
Nitrate	0.44	0.176	0.2068	0.836	0.748	0.66	0.3916	0.528
Calcium	34	90	32	36	54	56	44	48
Fluoride	0.13	0.02	0.21	0.05	0.10	0.02	0.25	0.22
Iron, total	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
Magnesium	30	100	60	40	180	130	60	30
Chromium	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
Bicarbonate	247	274.5	186	262.3	225.7	326.3	289.7	265.3
Carbonate	12	3	27	9	33	0	6	15
Sodium	40	90	50	280	920	760	70	60
Potassium	2.0	2.3	2.3	2.7	3.4	3.1	1.5	2.6
Total Coliforms /100mls	.3	3	NIL	3	NIL	4	1	5
Feacal Coliforms /100mls	NIL	1	NIL	1	NIL	NIL	NIL	NIL
Ammonium	0.13	0.00	0.182	0.208	0.338	0.494	0.182	0.312

NOTE:

Fe - Criterion of detection, p.p.m = 0.05 (Trace means < 0.05)
 Cr - Criterion of detection, p.p.m = 0.10 (Trace means < 0.1)

SAATENI WATER LABORATORY

Date... 4/12/2002

READING/ TEST RESULTS

	BUBUBU SPRING	MTONI SPRING	SAATENI WATER WORKS	DIMANI
Appearance	Clear	Clear	Clear	Clear
Odour	less	less	less	less
Colour	less	less	less	less
Turbidity	Not	Not	Not	Not
Temperature	29.5	33.7	30.8	33.6
pH	7.4	6.5	7.2	6.6
Conductivity	459	479	468	*570
TDS	229	240	234	280
Alkalinity	—	—	—	—
Hardness	85	110	95	130
Chloride	45.38	49.63	40.413	124.07
Salinity	79.75	87.2	71.02	218.05
Nitrite	0.0528	0.3366	0.0231	0.297
Nitrate	0.374	0.616	0.748	0.572
Calcium	34	44	38	52
Floride	0.23	0.05	0.13	0.0
Iron. total	0.05	Trace	0.05	0.06
Magnesium	120	100	120	110
Chromium	Trace	Trace	Trace	Trace
Bicarbonate	289.7	341.6	274.5	256.2
Carbonate	6	0	21	6
Sodium	60	160	80	600
Potassium	4.4	2.2	1.8	2.5
Total Coliforms /100mls	5	26	65	47
Feacal Coliforms /100mls	NIL	6	7	12
Ammonium	0.585	0.169	0.26	0.364

NOTE

Fe - Criterion of detection, ppm = 0.05 (Trace means < 0.05)
 Cr - Criterion of detection, ppm = 0.1 (Trace means < 0.1)

SAATENI WATER LABORATORY

Date 2/12/2002

READING/ TEST RESULTS

	MCHANGANI	MALINDI	SHANGANI	KIJANGWANI	MOMBASA	CHUMBUINI	BUBUBU	KIWAMI/PARA
Appearance	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Odour	less	less	less	less	less	less	less	less
Colour	less	less	less	less	less	less	less	less
Turbidity	Not	Not	Not	Not	Not	Not	Not	Not
Temperature	30.7	32.4	31.9	30.5	32.9	33.3	33.3	29.7
pH	7.1	6.8	6.6	7.2	7.5	7.2	6.8	7.2
Conductivity	465	467	483	467	572	429	454	432
TDS	232	234	242	233	290	215	227	216
Alkalinity	—	—	—	—	—	—	—	—
Hardness	75	130	135	85	130	115	135	90
Chloride	36.16	32	34.03	39.7	88.62	35.45	46.1	36.2
Salinity	63.54	56.1	60	69.8	155.75	62.3	81	63.54
Nitrite	0.4455	0.00	1.1649	0.0363	0.0825	0.0132	0.0693	0.1881
Nitrate	0.2992	0.352	0.66	0.3168	0.528	0.66	0.484	0.2596
Calcium	30	52	54	34	52	46	54	36
Fluoride	0.08	0.08	0.06	0.10	0.09	0.23	0.05	0.00
Iron, total	Trace	Trace	Trace	Trace	0.08	0.05	0.08	Trace
Magnesium	110	110	110	110	100	60	130	50
Chromium	—	—	—	—	—	—	—	—
Bicarbonate	—	—	—	—	—	—	—	—
Carbonate	—	—	—	—	—	—	—	—
Sodium	—	—	—	—	—	—	—	—
Potassium	—	—	—	—	—	—	—	—
Total Coliforms /100mls	56	59	49	22	32	16	54	8
Feacal Coliforms /100mls	5	22	21	6	4	4	6	1
SULPHATE	35	41.2	48	36.4	31.8	34	49	32.5

NOTE:

Fe - Criterion of detection ppm = 0.05 (Trace means < 0.05)

WATER ANALYSIS REPORT

Location ZANZIBAR Source CAVE
 Sample site DIMANI Source: MAIN FOR PUBLIC USE
 Water: ~~Not treated/Filtered/Chlorinated~~
 Sampling Time 9:45 Sampling Date 4/12/2002

Chemical and Physical Quality:

-	Appearance		<u>Clear</u>
-	Odour	mg/Pt	<u>odourless</u>
-	Temperature	oC	<u>33.6</u>
-	pH		<u>6.6</u>
-	Conductivity	Hs/cm	<u>570</u>
-	Total Solids		<u>280</u>
-	Dissolved Solids	mg/l	<u>130</u>
-	Hardness	mg/l CaCO ₃	<u>124.07</u>
-	Chloride	mg/l Cl	<u>218.05</u>
-	Salinity	ppt	<u>Not turbid</u>
-	Turbidity		<u>0.0</u>
-	Fluoride	mg/l F	<u>0.06</u>
-	Iron, Total	mg/l Fe	<u>48</u>
-	Sulphate	mg/l SO ₄	<u>0.572</u>
-	Nitrate	mg/l NO ₃	<u>0.297</u>
-	Nitrite	mg/l NO ₂	<u>52</u>
-	Calcium	mg/l Ca	<u>110</u>
-	Magnesium	mg/l Mg	<u>0.364</u>
-	Ammonium	mg/l NH ₄	<u>256.2</u>
-	Bicarbonate	mg/l HCO ₃	<u>6</u>
-	Carbonate	mg/l CO ₃	<u>Trace (< 0.1)</u>
-	Chromium	mg/l Cr	<u>600</u>
-	Sodium	mg/l Na	<u>2.5</u>
-	Potassium	mg/l K	

Bacteriological Quality:

Total Coliforms	<u>47</u>	/100 ml
Fecal Coliforms	<u>12</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended: Bacteriological quality
water seemed to be contaminated by both fecal and total
Coliform so treatment should be done before use.

Date 7/12/2002 Name of Analyst AMEIR - ~~Abdullah~~

WATER ANALYSIS REPORT

Location ZANZIBAR Source BORE HOLE
 Sample site MBWENI Source: FOR PUBLIC USE
 Water: ~~Not treated/Filtered/Chlorinated~~
 Sampling Time 8:58 a.m Sampling Date 29/11/2002

Chemical and Physical Quality:

- Appearance		<u>Clear</u>
- Odour	mg/Pt	<u>Odour less</u>
- Temperature	oC	<u>7.1</u>
- pH		<u>4.87</u>
- Conductivity	Hs/cm	
- Total Solids	mg/l	<u>244</u>
- Hardness	mg/l CaCO ₃	<u>90</u>
- Chloride	mg/l Cl	<u>57.43</u>
- Salinity	ppt	<u>101</u>
- Turbidity		<u>Not turbid</u>
- Fluoride	mg/l F	<u>0.05</u>
- Iron. Total	mg/l Fe	<u>Trace (< 0.05)</u>
- Sulphate	mg/l SO ₄	<u>35</u>
- Nitrate	mg/l NO ₃	<u>0.836</u>
- Nitrite	mg/l NO ₂	<u>0.0198</u>
- Calcium	mg/l Ca	<u>3.6</u>
- Magnesium	mg/l Mg	<u>4.0</u>
- Ammonium	mg/l NH ₄	<u>0.208</u>
- Bicarbonate	mg/l HCO ₃	<u>262.3</u>
- Carbonate	mg/l CO ₃	<u>9</u>
- Chromium	mg/l Cr	<u>Trace (< 0.1)</u>
- Sodium	mg/l Na	<u>2.80</u>
- Potassium	mg/l K	<u>2.7</u>

Bacteriological Quality:

Total Coliforms	<u>3</u>	/100 ml
Fecal Coliforms	<u>1</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended: From the result water seemed good, but for better precaution it should be treated (Chlorinated).

Date 7/12/2002 Name of Analyst AMEIR *(Signature)*

WATER ANALYSIS REPORT

Location ZANZIBAR Source BORE HOLE
 Sample site KABURI KIKOMBE Source: FOR PUBLIC USE
 Water: Not treated/~~Filtered~~/~~Chlorinated~~
 Sampling Time 8:05 am Sampling Date 29/11/2002

Chemical and Physical Quality:

-	Appearance		<u>Clear</u>
-	Odour	mg/Pt	<u>Odourless</u>
-	Temperature	oC	<u>31.8</u>
-	pH		<u>6.7</u>
-	Conductivity	Hs/cm	<u>696</u>
-	Total Solids	mg/l	<u>348</u>
-	Hardness	mg/l CaCO ₃	<u>135</u>
-	Chloride	mg/l Cl	<u>170.16</u>
-	Salinity	ppt	<u>299.05</u>
-	Turbidity		<u>Not turbid</u>
-	Fluoride	mg/l F	<u>0.10</u>
-	Iron. Total	mg/l Fe	<u>Trace (< 0.05)</u>
-	Sulphate	mg/l SO ₄	<u>48</u>
-	Nitrate	mg/l NO ₃	<u>0.748</u>
-	Nitrite	mg/l NO ₂	<u>0.0363</u>
-	Calcium	mg/l Ca	<u>54</u>
-	Magnesium	mg/l Mg	<u>180</u>
-	Ammonium	mg/l NH ₄	<u>0.338</u>
-	Bicarbonate	mg/l HCO ₃	<u>225.7</u>
-	Carbonate	mg/l CO ₃	<u>33</u>
-	Chromium	mg/l Cr	<u>Trace (< 0.1)</u>
-	Sodium	mg/l Na	<u>920</u>
-	Potassium	mg/l K	<u>3.4</u>

Bacteriological Quality:

Total Coliforms	<u>NIL</u>	/100 ml
Fecal Coliforms	<u>NIL</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended: Result show that water is good and can be used but for better precaution it is good to treat.

Date 7/12/2002 Name of Analyst Ameria *[Signature]*

WATER ANALYSIS REPORT

Location ZANZIBAR Source BORE HOLE (TAP OUT SIDE) SAMPLE TAKEN AT
 Sample site KIJITO UPELE Source: NOT WORKING
 Water: Not treated/~~Filtered~~/~~Chlorinated~~
 Sampling Time 8:30 Sampling Date 29/11/2002

Chemical and Physical Quality:

-	Appearance		<u>Clear</u>
-	Odour	mg/Pt	<u>Odourless</u>
-	Temperature	oC	<u>33.3</u>
-	pH		<u>7.4</u>
-	Conductivity	Hs/cm	<u>452</u>
-	Total Dissolved Solids	mg/l	<u>225</u>
-	Hardness	mg/l CaCO ₃	<u>120</u>
-	Chloride	mg/l Cl	<u>31.2</u>
-	Salinity	ppt	<u>55</u>
-	Turbidity		<u>Not turbid (Clear)</u>
-	Fluoride	mg/l F	<u>0.22</u>
-	Iron. Total	mg/l Fe	<u>Trace (< 0.05)</u>
-	Sulphate	mg/l SO ₄	<u>28</u>
-	Nitrate	mg/l NO ₃	<u>0.528</u>
-	Nitrite	mg/l NO ₂	<u>0.0079</u>
-	Calcium	mg/l Ca	<u>48</u>
-	Magnesium	mg/l Mg	<u>30</u>
-	Ammonium	mg/l NH ₄	<u>0.312</u>
-	Bicarbonate	mg/l HCO	<u>265.3</u>
-	Carbonate	mg/l CO ₃	<u>15</u>
-	Chromium	mg/l Cr	<u>Trace (< 0.1)</u>
-	Sodium	mg/l Na	<u>60</u>
-	Potassium	mg/l K	<u>2.6</u>

Bacteriological Quality:

Total Coliforms	<u>5</u>	/100 ml
Fecal Coliforms	<u>NIL</u>	/100 ml
Bacteriological Quality		
Potable /suspicious/polluted		

Remarks and Action recommended:

Bacteriological water
seemed to be contaminated but chemical and physical quality, water is good.

Date 7/12/2002 Name of Analyst AMEIR

WATER ANALYSIS REPORT

Location ZANZIBAR Source RESERVOIR
 Sample site MIGOMBANI-MNARAMBAO Source: FOR PUBLIC USE
 Water: Not treated/Filtered/Chlorinated
 Sampling Time 8:15 am Sampling Date 29/11/2002

Chemical and Physical Quality:

- Appearance		<u>Clear</u>
- Odour	mg/Pt	<u>Odourless</u>
- Temperature	oC	<u>32</u>
- pH		<u>6.5</u>
- Conductivity	Hs/cm	<u>714</u>
- Total Dissolved Solids	mg/l	<u>356</u>
- Hardness	mg/l CaCO ₃	<u>140</u>
- Chloride	mg/l Cl	<u>176.2</u>
- Salinity	ppt	<u>309.6</u>
- Turbidity		<u>Not turbid (clear)</u>
- Fluoride	mg/l F	<u>0.02</u>
- Iron. Total	mg/l Fe	<u>Trace (< 0.05)</u>
- Sulphate	mg/l SO ₄	<u>49</u>
- Nitrate	mg/l NO ₃	<u>0.66</u>
- Nitrite	mg/l NO ₂	<u>0.0924</u>
- Calcium	mg/l Ca	<u>56</u>
- Magnesium	mg/l Mg	<u>130</u>
- Ammonium	mg/l NH ₄	<u>0.494</u>
- Bicarbonate	mg/l HCO ₃	<u>326.3</u>
- Carbonate	mg/l CO ₃	<u>0.0</u>
- Chromium	mg/l Cr	<u>Trace (< 0.1)</u>
- Sodium	mg/l Na	<u>760</u>
- Potassium	mg/l K	<u>3.1</u>

Bacteriological Quality:

Total Coliforms	<u>4</u>	/100 ml
Fecal Coliforms	<u>NIL</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended: Bacteriological water seemed to be contaminated but chemical and physical quality water is good.

Date 7/12/2002 Name of Analyst AMEIR - ~~Atahod~~

WATER ANALYSIS REPORT

Location ZANZIBAR Source BORE HOLE
 Sample site CHUNGA Source: FOR PUBLING USE
 Water: Not treated/Filtered/Chlorinated
 Sampling Time 8:40 a.m Sampling Date 29/11/2002

Chemical and Physical Quality:

- Appearance		<u>Clear</u>
- Odour	mg/Pt	<u>Odour less</u>
- Temperature	oC	<u>33.2</u>
- pH		<u>6.9</u>
- Conductivity	Hs/cm	<u>437</u>
- Total Dissolved Solids	mg/l	<u>218</u>
- Hardness	mg/l CaCO ₃	<u>110</u>
- Chloride	mg/l Cl	<u>27.651</u>
- Salinity	ppt	<u>48.6</u>
- Turbidity		<u>Not turbid</u>
- Fluoride	mg/l F	<u>0.25</u>
- Iron. Total	mg/l Fe	<u>Trace (< 0.05)</u>
- Sulphate	mg/l SO ₄	<u>43</u>
- Nitrate	mg/l NO ₃	<u>0.3916</u>
- Nitrite	mg/l NO ₂	<u>0.0231</u>
- Calcium	mg/l Ca	<u>44</u>
- Magnesium	mg/l Mg	<u>60</u>
- Ammonium	mg/l NH ₄	<u>0.182</u>
- Bicarbonate	mg/l HCO ₃	<u>289.7</u>
- Carbonate	mg/l CO ₃	<u>5</u>
- Chromium	mg/l Cr	<u>Trace (< 0.1)</u>
- Sodium	mg/l Na	<u>70</u>
- Potassium	mg/l K	<u>1.5</u>

Bacteriological Quality:

Total Coliforms	<u>1</u>	/100 ml
Fecal Coliforms	<u>NIL</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended: Result show that water is good and can be used for both domestic and commercial but for better precaution it is good to treat.

Date 7/11/2002 Name of Analyst Amer - ~~Atkins~~

WATER ANALYSIS REPORT

Location ZANZIBAR Source BORE HOLE
 Sample site MWEMBE MCHOMEICE Source: FOR PUBLIC USE
 Water: Not treated/~~Filtered~~/Chlorinated
 Sampling Time 9:12 a.m Sampling Date 29/11/2002

Chemical and Physical Quality:

- Appearance		<u>Clear</u>
- Odour	mg/Pt	<u>Odourless</u>
- Temperature	oC	<u>33.1</u>
- pH		<u>6.9</u>
- Conductivity	Hs/cm	<u>396</u>
- Total Solids		
- Dissolved Solids	mg/l	<u>197</u>
- Hardness	mg/l CaCO ₃	<u>80</u>
- Chloride	mg/l Cl	<u>34.032</u>
- Salinity	ppt	<u>60</u>
- Turbidity		<u>Not turbid</u>
- Fluoride	mg/l F	<u>0.21</u>
- Iron. Total	mg/l Fe	<u>Trace (< 0.05)</u>
- Sulphate	mg/l SO ₄	<u>39</u>
- Nitrate	mg/l NO ₃	<u>0.2068</u>
- Nitrite	mg/l NO ₂	<u>0.0132</u>
- Calcium	mg/l Ca	<u>32</u>
- Magnesium	mg/l Mg	<u>60</u>
- Ammonium	mg/l NH ₄	<u>0.182</u>
- Bicarbonate	mg/l HCO	<u>186</u>
- Carbonate	mg/l CO ₃	<u>27</u>
- Chromium	mg/l Cr	<u>Trace</u>
- Sodium	mg/l Na	<u>50</u>
- Potassium	mg/l K	<u>2.3</u>

Bacteriological Quality:

Total Coliforms	<u>NIL</u>	/100 ml
Fecal Coliforms	<u>NIL</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended: From the result water seemed good but for precaution it should be treated.

Date 7/12/2002 Name of Analyst AMEIR *[Signature]*

WATER ANALYSIS REPORT

Location ZANZIBAR Source BORE-HOLE
 Sample site KIANGA Source: FOR PUBLIC USE
 Water: Not treated/Filtered/Chlorinated
 Sampling Time 9:35am Sampling Date 29/11/2002

Chemical and Physical Quality:

-	Appearance		<u>Clear</u>
-	Odour	mg/Pt	<u>Odour less</u>
-	Temperature	oC	<u>32.2</u>
-	pH		<u>6.5</u>
-	Conductivity	Hs/cm	<u>407</u>
-	Total		
-	Dissolved		<u>207</u>
-	Solids	mg/l	<u>85</u>
-	Hardness	mg/lCaCO ₃	<u>48.212</u>
-	Chloride	mg/l Cl	<u>84.73</u>
-	Salinity	ppt	<u>Not turbid (clear)</u>
-	Turbidity		<u>0.13</u>
-	Fluoride	mg/l F	<u>Trace (<0.05)</u>
-	Iron. Total	mg/l Fe	<u>43</u>
-	Sulphate	mg/l SO ₄	<u>0.44</u>
-	Nitrate	mg/l NO ₃	<u>0.0099</u>
-	Nitrite	mg/l/NO ₂	<u>34</u>
-	Calcium	mg/l Ca	<u>30</u>
-	Magnesium	mg/l Mg	<u>0.13</u>
-	Ammonium	mg/l NH ₄	<u>247</u>
-	Bicarbonate	mg/l HCO ₃	<u>12</u>
-	Carbonate	mg/l CO ₃	<u>Trace (<0.1)</u>
-	Chromium	mg/l Cr	<u>40</u>
-	Sodium	mg/l Na	<u>2.0</u>
-	Potassium	mg/l K	

Bacteriological Quality:

Total Coliforms	<u>3</u>	/100 ml
Fecal Coliforms	<u>NIL</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended: From the results water seemed good but for better precaution it should be treated.

Date 7/12/2002 Name of Analyst AMEIR - ~~Palah~~

WATER ANALYSIS REPORT

Location ZANZIBAR Source SPRING
 Sample site MTONI Source: MAIN FOR PUBLIC USE
 Water: Not treated/Filtered/Chlorinated
 Sampling Time 8:31 A.M Sampling Date 4/12/2002

Chemical and Physical Quality:

-	Appearance		<u>Clear</u>
-	Odour	mg/Pt	<u>Odourless</u>
-	Temperature	oC	<u>33.7</u>
-	pH		<u>6.5</u>
-	Conductivity	Hs/cm	<u>479</u>
-	Total Solids	mg/l	<u>240</u>
-	Dissolved Solids	mg/l	<u>110</u>
-	Hardness	mg/l CaCO ₃	<u>49.63</u>
-	Chloride	mg/l Cl	<u>87.2</u>
-	Salinity	ppt	<u>No turbid (Clear)</u>
-	Turbidity		<u>0.05</u>
-	Fluoride	mg/l F	<u>Trace = mean < 0.05</u>
-	Iron. Total	mg/l Fe	<u>51</u>
-	Sulphate	mg/l SO ₄	<u>0.616</u>
-	Nitrate	mg/l NO ₃	<u>0.3366</u>
-	Nitrite	mg/l NO ₂	<u>4.4</u>
-	Calcium	mg/l Ca	<u>100</u>
-	Magnesium	mg/l Mg	<u>0.169</u>
-	Ammonium	mg/l NH ₄	<u>341.6</u>
-	Bicarbonate	mg/l HCO ₃	<u>0.0</u>
-	Carbonate	mg/l CO ₃	<u>Trace = mean < 0.1</u>
-	Chromium	mg/l Cr	<u>160</u>
-	Sodium	mg/l Na	<u>2.2</u>
-	Potassium	mg/l K	

Bacteriological Quality:

Total Coliforms	<u>26</u>	/100 ml
Fecal Coliforms	<u>6</u>	/100 ml
Bacteriological Quality		
Potable/suspicious/polluted		

Remarks and Action recommended:

Water seemed to be contaminated, so it should be treated before used (Chlorinated).

Date 7/12/2002 Name of Analyst AMEIR - ~~Amir~~