

EVALUATION OF THE GROUNDWATER
FOR AGRICULTURE

BY

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Index

Contents

	Page
Chapter I. Introduction.....	1
1.1. Location of the studied area.....	2
1.2. Objective of the present study.....	5
Chapter II. Geology and Hydrogeology.....	7
2.1. Regional Geology Setting.....	7
2.1.1. Geomorphology.....	7
2.1.2. Topography.....	8
2.1.3. Geology.....	8
2.2. Regional Geological structure.....	9
2.3. Regional Hydrogeological Features.....	11
Chapter III. Previous Studies.....	14
Chapter IV. Materials and methods.....	22
4.1. Sampling.....	22
4.1.1. Groundwater.....	22
4.1.2. Surface water.....	22
4.1.3. Drainage and waste disposal water samples.....	23
4.2. measurements.....	23
Chapter V . Results and Discussions.....	27
5.1. Salinity	27
5.2. Distribution of Cations.....	48
5.2.1. Sodium	48
5.2.2. Calcium.....	54
5.2.3. Magnesium.....	57
5.2.4. Potassium.....	61
5.3. Distribution of Anions.....	63
5.3.1. Chlorides.....	63

5.3.2 Sulphates.....	71
5.3.3. Carbonate and bicarbonate.....	78
5.4. Graphical representation of hydrochemical data.....	89
5.4.A. Sulin's Diagram.....	89
5.4.B. Palmar's diagram	97
5.4.c. Ionic ratio according to Bazilivich and Pankova (1968).....	110
5.5. Distribution of salt types.....	115
5.6. Origin of the groundwater.....	121
5.7. Relationship of water quality to use.....	122
5.7.A. Suitability of groundwater for irrigation Purposes.....	123
1. Quality of groundwater according to salinity content.....	124
2. Quality of groundwater according to SAR.....	127
3. Quality of groundwater according to CL content.....	133
4. Quality of groundwater according to trace elements concentration,.....	135
5. Quality of groundwater according to hardness.....	138
6. Interpreting the analysis of irrigation water using the Relation between SAR and EC values.....	146
7. Quality of groundwater according to residual sodium carbonate content (RSC)	148
7. Quality of groundwater according to Boron content.....	150
8. Suitability of groundwater for domestic uses and public supplies.....	153
a. Concentration of the trace elements.....	153
b. Hydrogen Ion Activity (pH).....	156

5.8. Trace Elements.....	164
5.8.1. Iron.....	164
5.8.2. Zinc.....	167
5.8.3. Managaneze.....	170
5.8.4. Nickel.....	171
5.8.5. Lead.....	175
5.8.6. Cadminum.....	177
5.8.7. B ron.....	178
Chapter VI.6.1. Summary and conclusion.....	182
6.2. References.....	191
6.3. Arabic Summary	

List of Tables

Table No.	Page
1. Chemical analysis for the major elements in the studied water samples.....	29
2. The calculated ionic ratio according to Sulin for the studied water samples.....	90
3. Percentage of the detected salt types according to Palmar's method (1954) for the groundwater samples.....	107
4. Percentage of the detected salt types for the surface water according to Palmar's method.....	109
5. The calculated ionic ratio according to Bazilevich and Bankoval 1968	111
6. Nomenclature of cation ratios.....	116
7. Nomenclature of anion ratios.....	116
8. Classification for the groundwater according to SAR values.....	130
8. The relation between RSC, SAR, and EC for the studied water samples	131
9 Chloride standard limits according to Tylor and Oza (1954).....	135
10. Recommended maximum limits (ppm) for the trace elements in irrigation water by the National Academy of Engineering. (1972).....	137
1. Total hardness.....	143
2 The Permissible Boron concentration in irrigation water according to Salinity Laboratory.....	152
3. U.S. Public Health Service for drinking water standards (1962)....	155
4. Trace elements analysis for the studied water samples.....	160

List of Maps

Map No.	Page
1. Key map	3
2 Salinity content	44
3 Sodium content	51
4 Chloride content	68
5 Sulphate content	76
6 Carbonate content	81
7 Bicarbonate content	86
8 Groundwater prevailance salt types distribution.....	118
9 Groundwater SAR distribution.....	129
10 Groundwater total hardness distribution.....	141
11 Groundwater residual sodium carbonate distribution.....	150
12 Groundwater pH distribution	157

List of Figures

Fig.	Page
1. Regional hydrogeological cross section for Greater Cairo.....	10
2. The relation between salinity content and location of wells along East-west direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	46
3. The relation between sodium content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	53
4. The relation between calcium content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	56
5. The relation between magnesium content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	60
6. The relation between potassium content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	64
7. The relation between chloride content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	70
8. The relation between sulphate content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	77
9. The relation between carbonate content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	83
10. The relation between bicarbonate content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	87
11. Sulin's graph for representation of the hydrochemical composition in the studied area,.....	96
12. Graphical representation of water chemical analysis (Palmar's method).....	98
13. Richard curve: Irrigation water classification.....	145
14. The relation between Iron content and location of wells along East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$.	165

15. The relation between Zinc content and location of wells along
East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$. 168
16. The relation between Manganese content and location of wells along
East-West direction from the River Nile cross section A-A and B-B. 172
17. The relation between Nickel content and location of wells along
East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$. 174
18. The relation between Lead content and location of wells
along East-West direction from the River Nile cross section A- $\bar{A}$ and
B- $\bar{B}$. 176
19. The relation between Cadmium content and location of wells along
East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$. 179
20. The relation between Boron content and location of wells along
East-West direction from the River Nile cross section A- $\bar{A}$ and B- $\bar{B}$. 181

1- INTRODUCTION.

I- INTRODUCTION

People have long ignored pollution and its effects on the environment. Pollution has increased along with population until it can no longer be neglected. Much studies has done into pollution problems in recent years and a great deal of concern has been expressed for our environment.

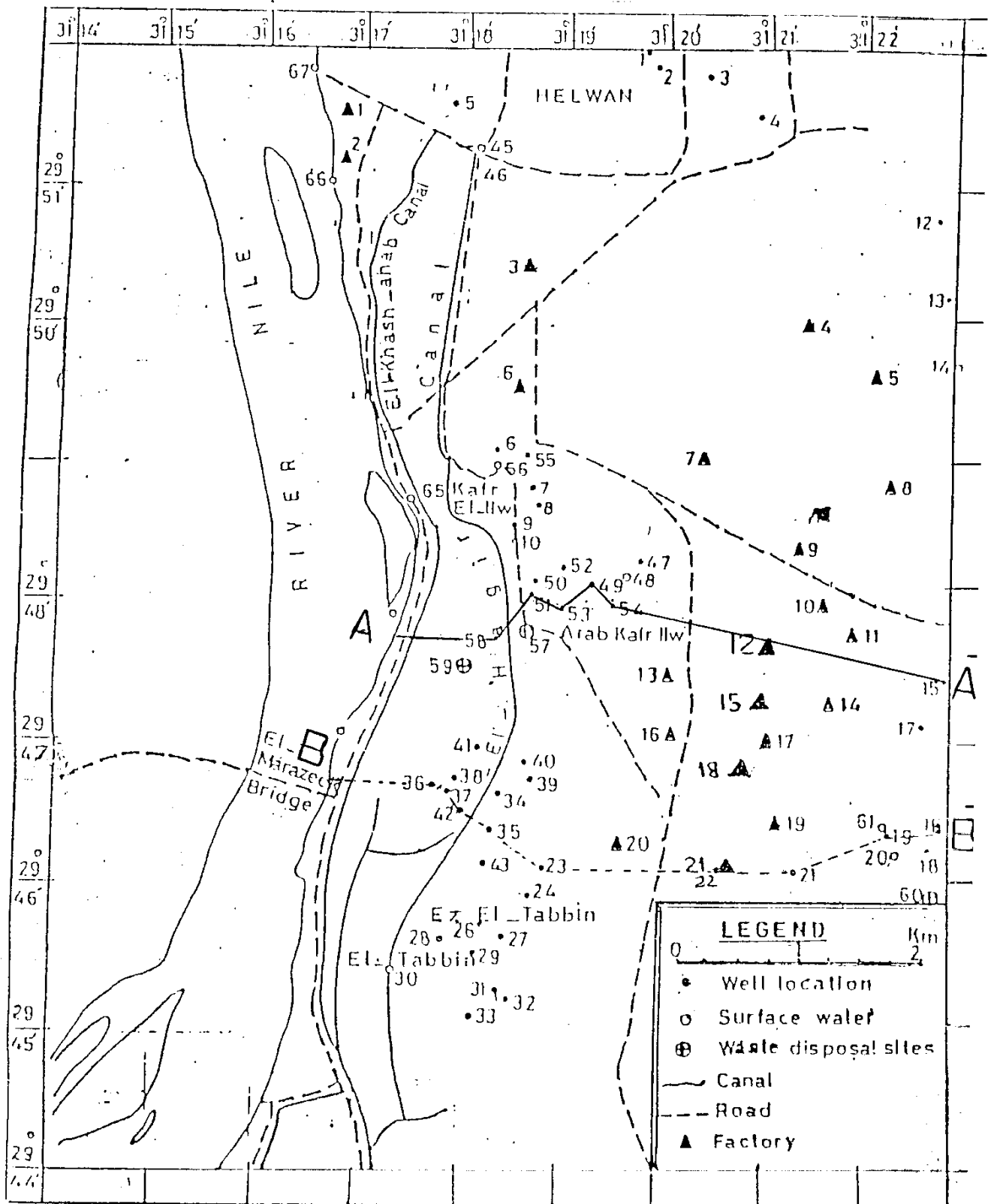
Pollution is such a complex and persistent problem, it is so far-reaching that everyone is affected, and united efforts are needed to control pollution.

Concerning groundwater pollution, it is known that the groundwater is generally considered to be a safer source of drinking water than surface water while groundwater can be contaminated by bacteria and has often caused epidemics. It is obvious that protection areas around groundwater pumping stations were originally intended to prevent the contamination of groundwater by bacteria. Now the topic of groundwater protection within the frame of nature and environment protection is connected with growth in the negative impacts of mineral extraction, industry, transport, agriculture and urbanistic development which is going on with growing intensity in most countries of the world. Harmonization of relations between economic

development and environment protection has become an extremely difficult task especially in countries with a dense population and with concentrated industrial and agricultural potentials. From the point of the kinds of contaminating substances in the groundwater it is most frequently subdivided into chemical compounds contamination (inorganic, organic, radioactive substances and gases), vegetable and animal contamination; (degraded organic substances, excrements, fatty acids, carbohydrates, etc.) living organisms pollution (protozoa, bacteria, viruses). In other words, the pollution may be chemical, radioactive, and biologic.

1.1 Location of the studied area :

This study was carried out to study the chemical pollution of the groundwater in the south areas of Cairo city, (Map 1). These areas are very fast developing into an industrial state with the establishment of many medium to large industries. The haphazard establishment of industries is disturbing the environmental balance and may be resulting in the pollution of the groundwater. The industrial units are discharging their effluents on the surface which through seepage reaches the groundwater reservoir. In most of this region, the surface clay layer



KEY MAP (1)