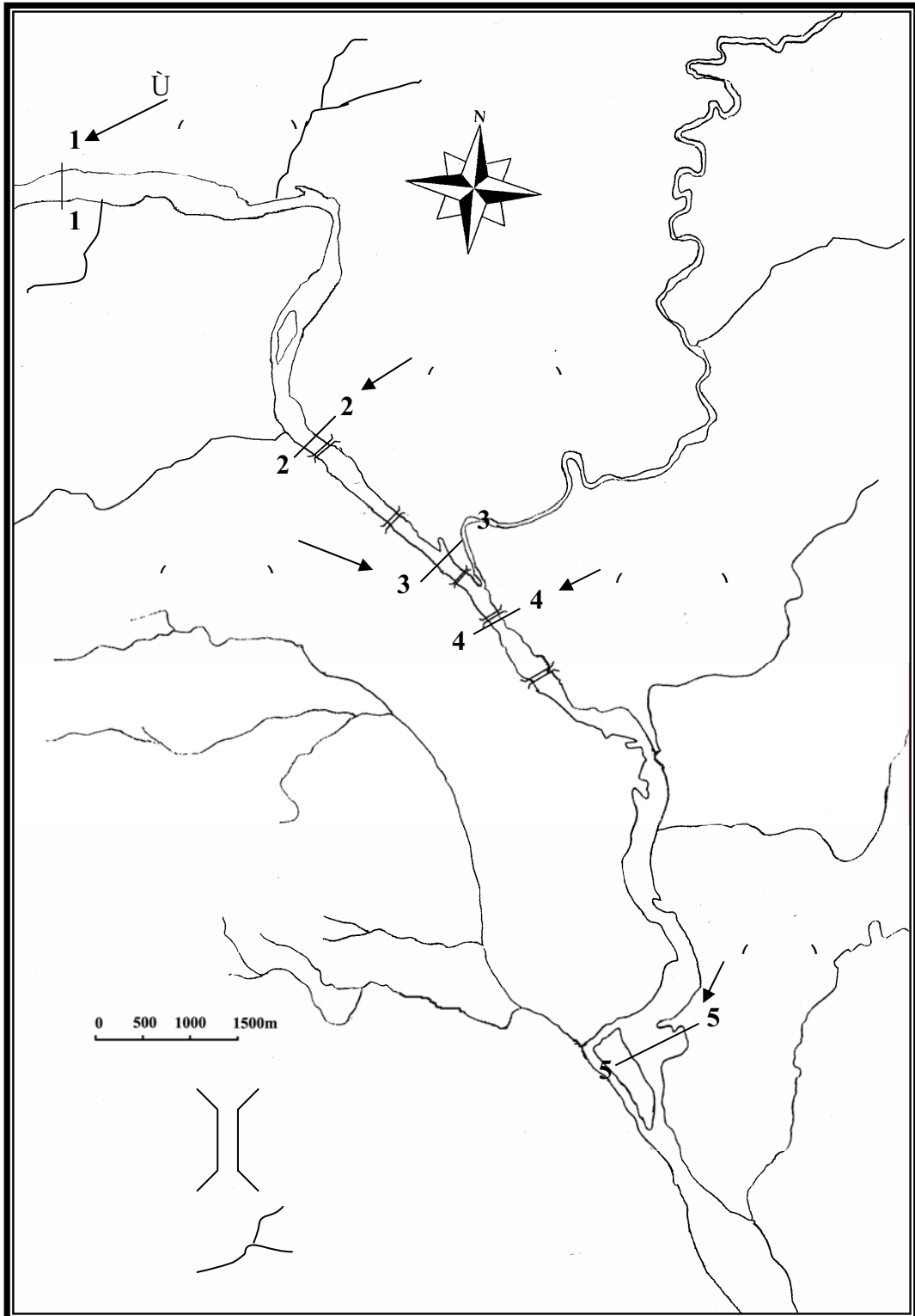
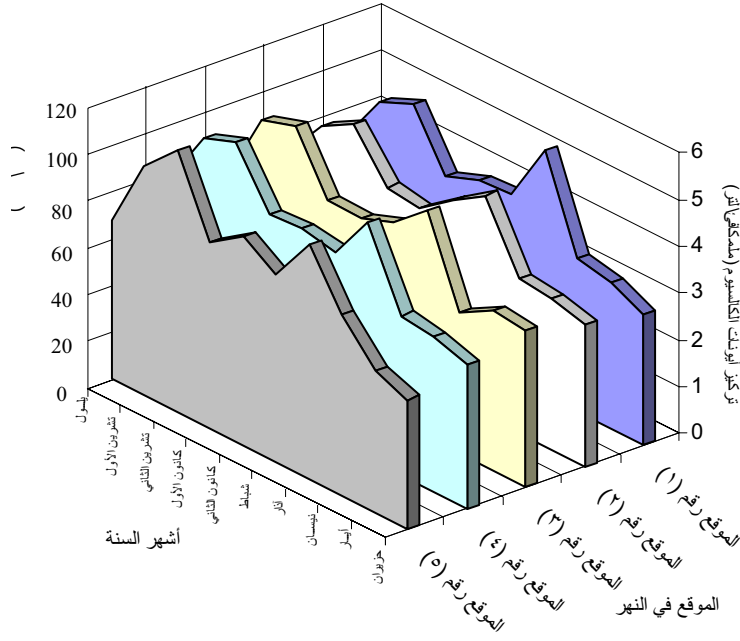


^[16] (Kharrufa, 1996)
 (2.4) (6.6) (35.6) (52.4)
 (30)
 (1) (2001) (2000)
 (Mg⁺²) (Ca⁺²) (Na⁺¹) (EDTA)
^[17] (APHA et al., 1985)
 (7.24) (2) (5) (2) (5.63) (4.82) (0.85) (3.4) (20)
^[18] (0.013) (2) Ø
 ()

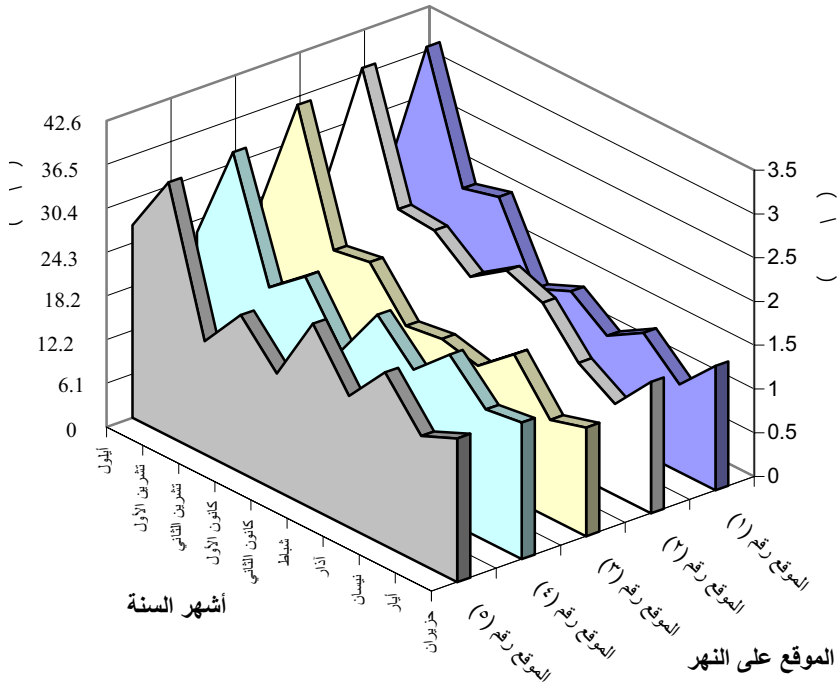
(K ⁺¹)	(Na ⁺¹)	(Mg ⁺²)	(Ca ⁺²)	
0.19-0.05	1.50-0.58	3.40-1.00	5.26-2.82	(1)
0.20-0.08	1.60-0.75	3.42-1.04	4.84-3.06	(2)
0.22-0.06	1.60-0.80	3.26-1.12	5.25-3.04	(3)
0.20-0.06	1.60-0.90	2.98-1.34	5.40-3.08	(4)
0.21-0.06	1.60-0.70	2.90-1.29	5.63-2.78	(5)



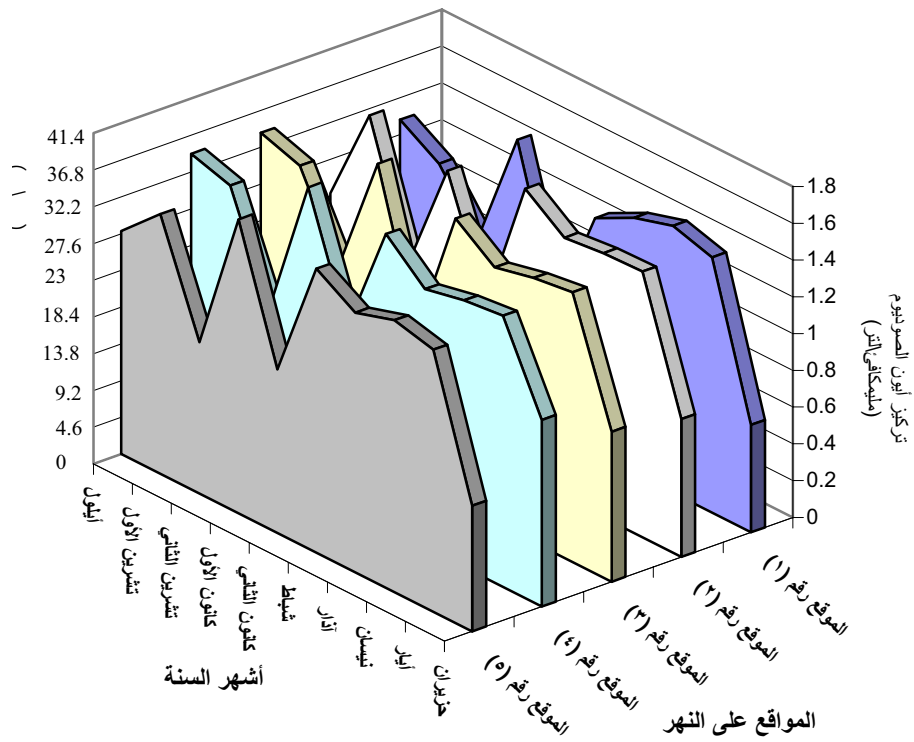
:(1) Ø



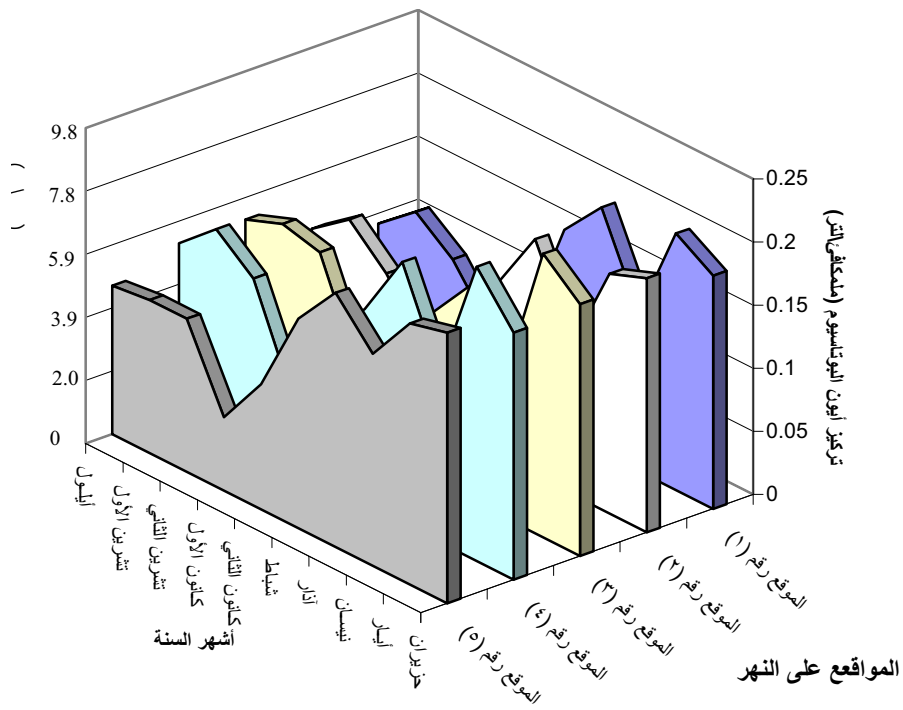
∅ (2): \bar{U} . (2001-2000)



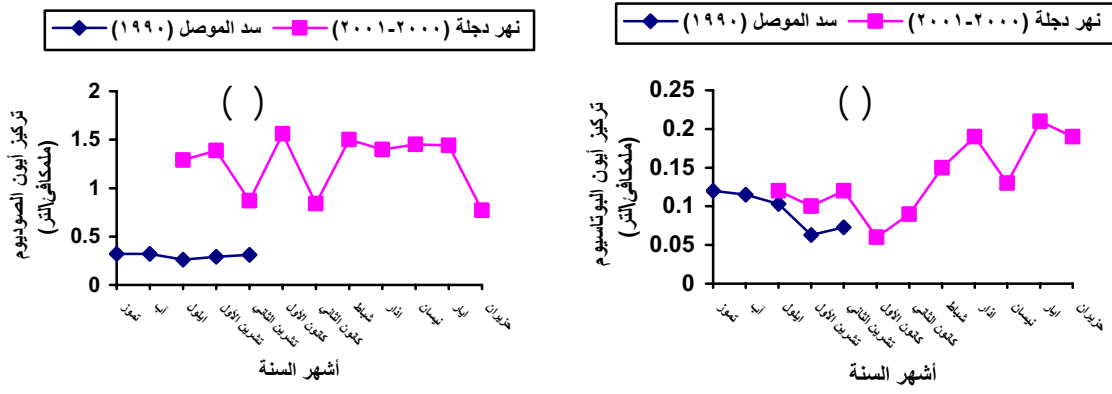
∅ (3): \bar{U} . (2001-2000)



Ø (4) :
.. (2001-2000)



Ø (5) :
.. (2001-2000)



Ø (- 7) Û

Û Û Û Û

Û Û (3) Û

Û Û [15] (Hanna and Al-Talabani, 1970)

Û

[19]

Û Û (3) Ø

Û [16] Û [15] Û

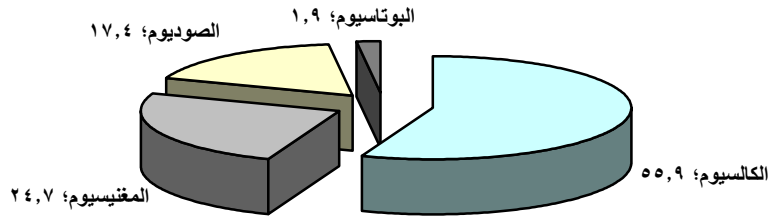
0.14	1.3	1.8	4	(\)	(2001-2000)
1.9	17.4	24.7	55.9	%	
0.06	0.5	1.8	2.7	(\)	[15](1970)
1.2	9.8	35.6	53.4	%	
0.11	0.303	1.77	2.4	(\)	Û [16](1990)
2.4	6.6	38.6	52.4	%	

(Piedigram) (8) Û

(9) Û

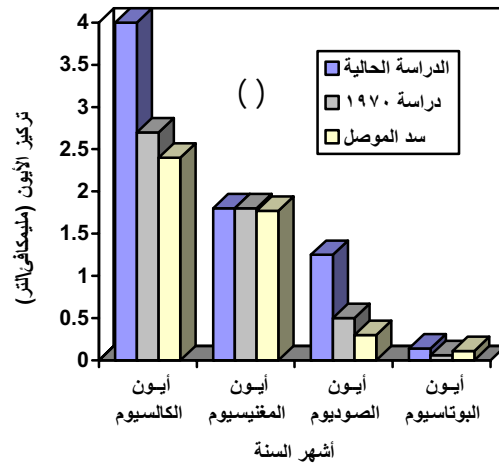
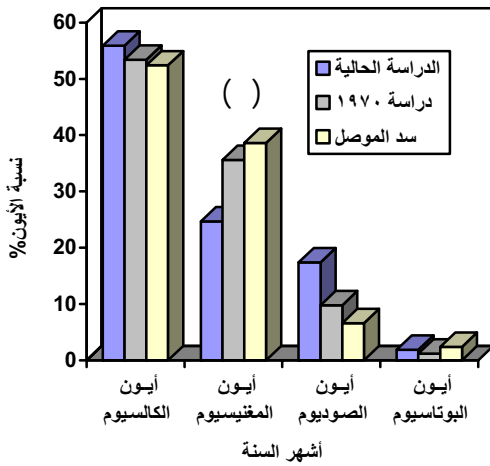
Û [15] (Hanna and Al-Talabani, 1970) Û Û Û

[16] (Kharufa, 1996) Û



Ø (8):

(2001-2000).



Ø (9):

(1990) (1970)

() ()

Ø Ø (9 9 8) Ù (3) Ù Ù

(Gypsum) Ø (Dolomite)

(Limestone)

Ø \ (4)

[20] , [4] , [1]

Ø (%55.9)

(1.5)

(1.6)

Ø \ (%52.4)

(%53.4)

Ø \ (1.8)

(%24.7)

Ø Ø Ø

Ù [1]

[15] (Hanna and Al-Talabani, 1970) [16].(Kharrufa, 1996) (1.77) (3)

(1970) (%38.6) (%35.6)

(1.3) (2.6 ,13.6) [16] (Kharrufa, 1996) (%17.4)

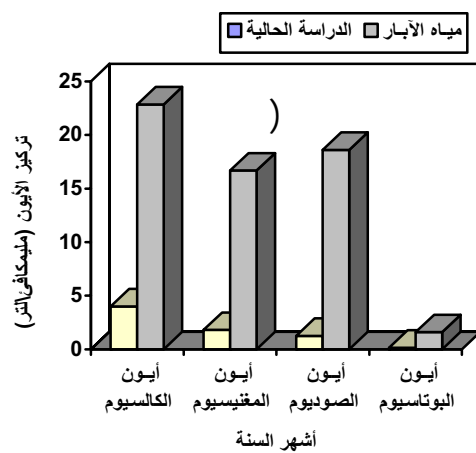
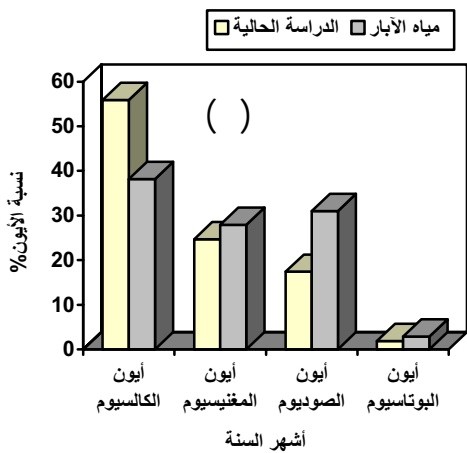
(%6.6 ,%9.9) (0.14) (%1.9)

(9) (3) (Biotite)

[16](Kharrufa, 1996) [15](Hanna and Al-Talabani,1970) (1.3 ,2.33)

(10) (5) [6] [5] (14.3)

(9.3) (5.7) (11.4) (10)



(9) ()

[6] [5] () ()

\	(7.24)								.1
,%55.9)	Õ	Õ \	(0.14 ,1.3 ,1.8 ,4)						.2
						(%1.9 ,%17.4 ,%24.7			.3
Ù Õ	Ù								.4
Õ Õ	Õ								.5
Õ (1.6)	Õ	Ù							.6
Õ				(1.3)		(2.6)			
Õ									.7
Õ Õ	Ù	(2.33 ,13.6 ,1.5)	Ù	Ù	Ù	Ù	Ù	Ù	
Õ	Ù								.8
Õ	14.3			9.3				5.6	
								11.4	.9

1. Davis, S.N. and Dewiest, R.J.M., Hydrogeology, John-Wiley and sons, New York, 1966.
2. Tebbutt, T.H.Y., Principles of Water Quality control, Butterworth- Heinemann, USA, 1998, 280p.
3. Twort, A.C., Ratnayka, S.D. and Brandt, M.J., Water Supply, 5th ed., Butterworth- Heinemann, USA, 2001, 676p.
4. Al-Layla, M.A., Al-Rawi, S.M. and Al-Kawaz, H.A., Physico-Chemical Evaluation of Ground Water Around Saddam Lake used for Drinking and Domestic purposes, 2nd Conference of SDRC, University of Mosul, Iraq, 1991, 173-188.
5. Al-Rawi, S.M., Al-Azzo, S.A., and Abbawi, S.A., Hydrogeochemical Evaluation of Groundwater in some parts of Mosul City and suitability for Irrigation, 2nd conference of SDRC, University of Mosul, Iraq, 1991.
6. Al-Salim, T.H., Salih, A.M. and Al- Tamir, M.A., Groundwaer Quality at Al-Rasheedia and Guba Area NW of Mosul city/Iraq, Raf. Jour. Sci. Vol. 12, No. 4, 35-46.

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