

YEARBOOK 1984 NILE DELTA

DISCHARGE AND CHEMICAL COMPOSITION DRAINAGE WATER

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PROJECT TEAM

REPORT 13

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PREFACE

The 'Reuse of Drainage Water Project' is a joint activity of the technical agencies:

Drainage Research Institute (DRI), Giza/Cairo-Egypt and
Institute for Land and Water Management Research (ICW), Wageningen,
the Netherlands.

The Project is funded by the Ministry of Irrigation of Egypt and by the Ministry of Foreign Affairs of the Netherlands in the framework of the joint programme of Technical Cooperation between Egypt and the Netherlands.

The Advisory Panel for Land Drainage in Egypt acts as steering committee.

The results of studies, carried out in the 'Reuse of Drainage Water Project' will be presented in preliminary reports and in a final report. As such the contents of preliminary reports can vary strongly, from a simple presentation of data to a discussion of research results with tentative conclusions.

All opinions, conclusions and recommendations in these reports are those of the cooperating Institutes, and not of the Ministry of Irrigation of Egypt or the Ministry of Foreign Affairs of the Netherlands.

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1. INTRODUCTION

The growing population of Egypt requires an increase in the production of food and fibres. It also requires new land to substitute land lost due to newly built housings and roads.

Four strategies have been developed to meet the requirements. Among others, reuse of drainage water is a strategy to provide additional irrigation water for areas that will be reclaimed. In the five-year plan 1982-1987 for a total area of about 640,000 feddan (1 feddan = 0.42 ha) reclamation plans will be prepared, and a start will be made with the implementation.

The Reuse of Drainage Water Project aims to provide basic data, that can be used in the above mentioned planning. A measurement network has been established to provide these data. At drainage catchment level, discharges and drainage water quality are determined. Discharges from drainage pumping stations are provided by the Ministry of Irrigation. Calibrations of these pumping stations are part of the Reuse Project activities and provide data to calculate the discharges more accurately.

Discharges from areas drained by gravity are measured by appropriate methods, depending on a number of constraints. Water samples at the locations, shown in fig. 1, 2 and 3 are regularly taken. The chemical composition is determined and water quality parameters are calculated. During 1984 on many open drainage locations salinity and level recorders have been installed. At pump stations during this year a modest start has been made with salinity observations, three times daily, by the pump station engineers.

The aim of this report is to present the basic data in a suitable form for the potential user. A short description of the procedures followed is included in this report

The data are presented in two sections:

In the first section are discharges salinities and parameters for the sodification hazards of irrigation with these waters.

In the second section the monthly average chemical composition is presented. Application of these data for different purposes is beyond the scope of this report.

The cooperating institutes do not accept any responsibility for conclusions drawn on the basis of the data presented nor for the results of application of these data.

The year 1984 can be considered as a transition phase between the short term measurement programme initiated by DRI under the Drainage Panel Project and the long term programme initiated by DRI in the framework of the Reuse of Drainage Water Project. On the one hand less attention has been paid during 1984 to the routine measurement programme resulting in a lower frequency of observations. On the other hand emphasis has been laid on the installation of field equipment resulting in a continuous data collection for some measurement points during part of the observation year.

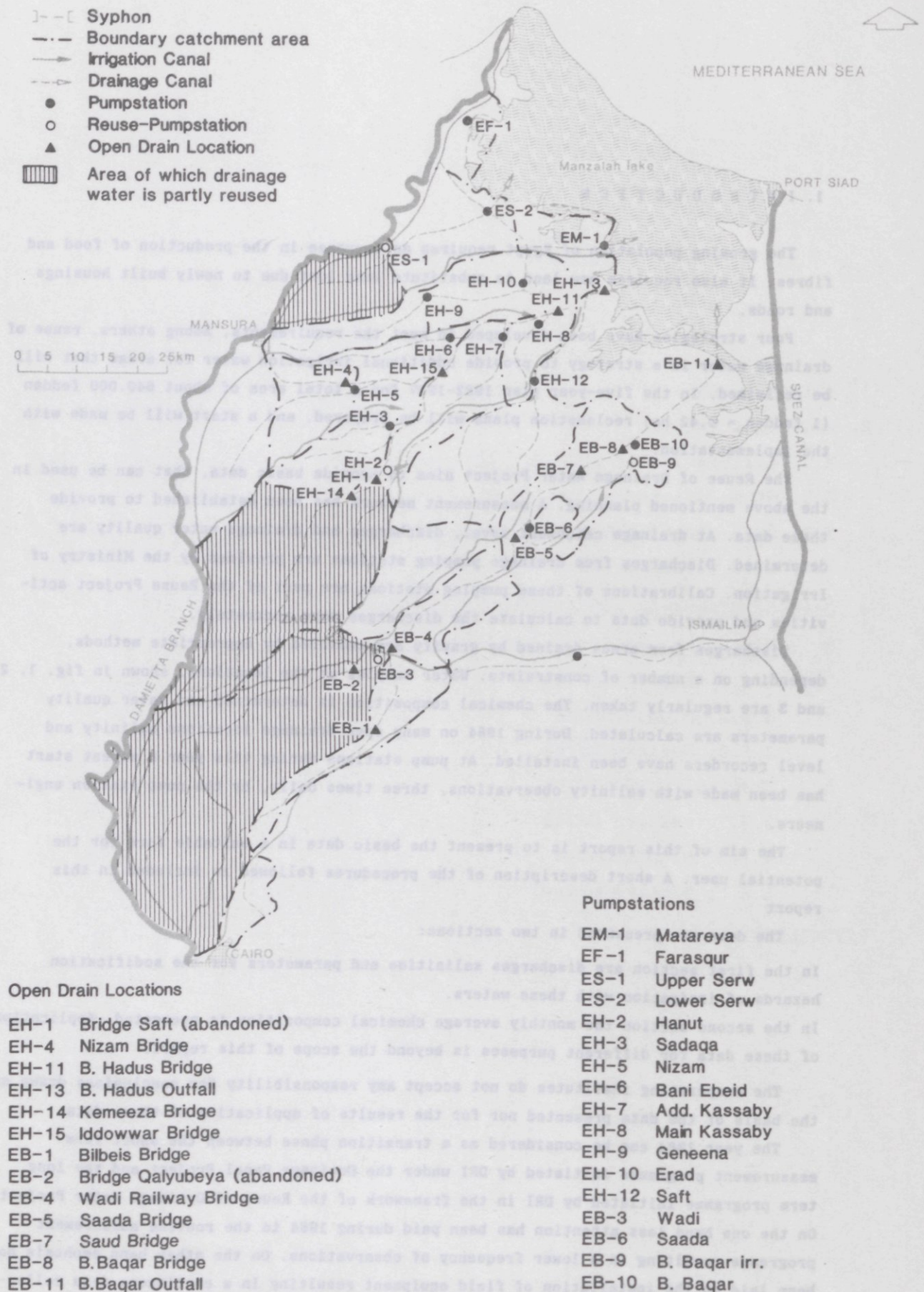


Fig. 1. General view of the network in the Eastern Delta

2. DATA ELABORATION

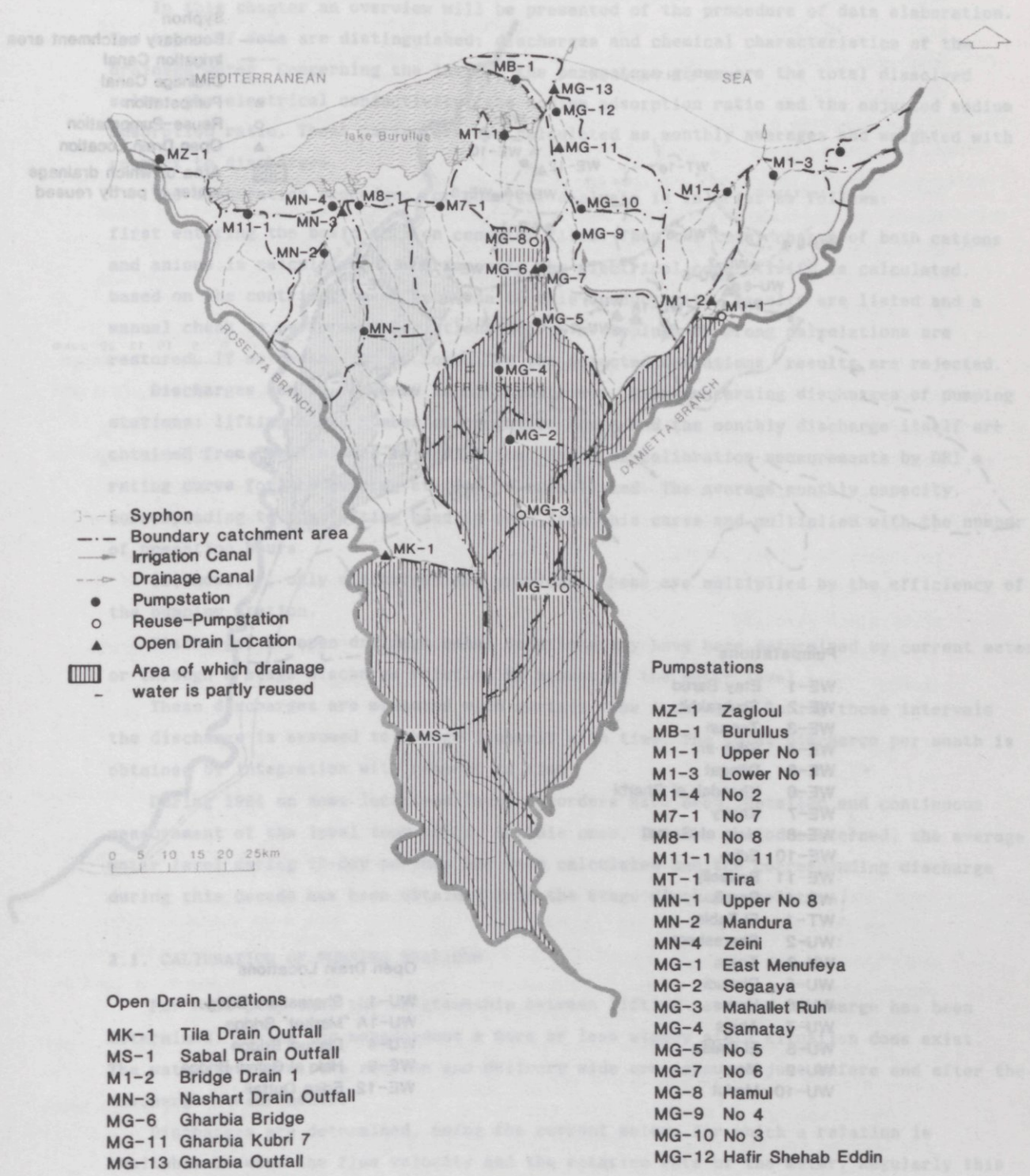


Fig. 2. General view of the network in the Middle Delta

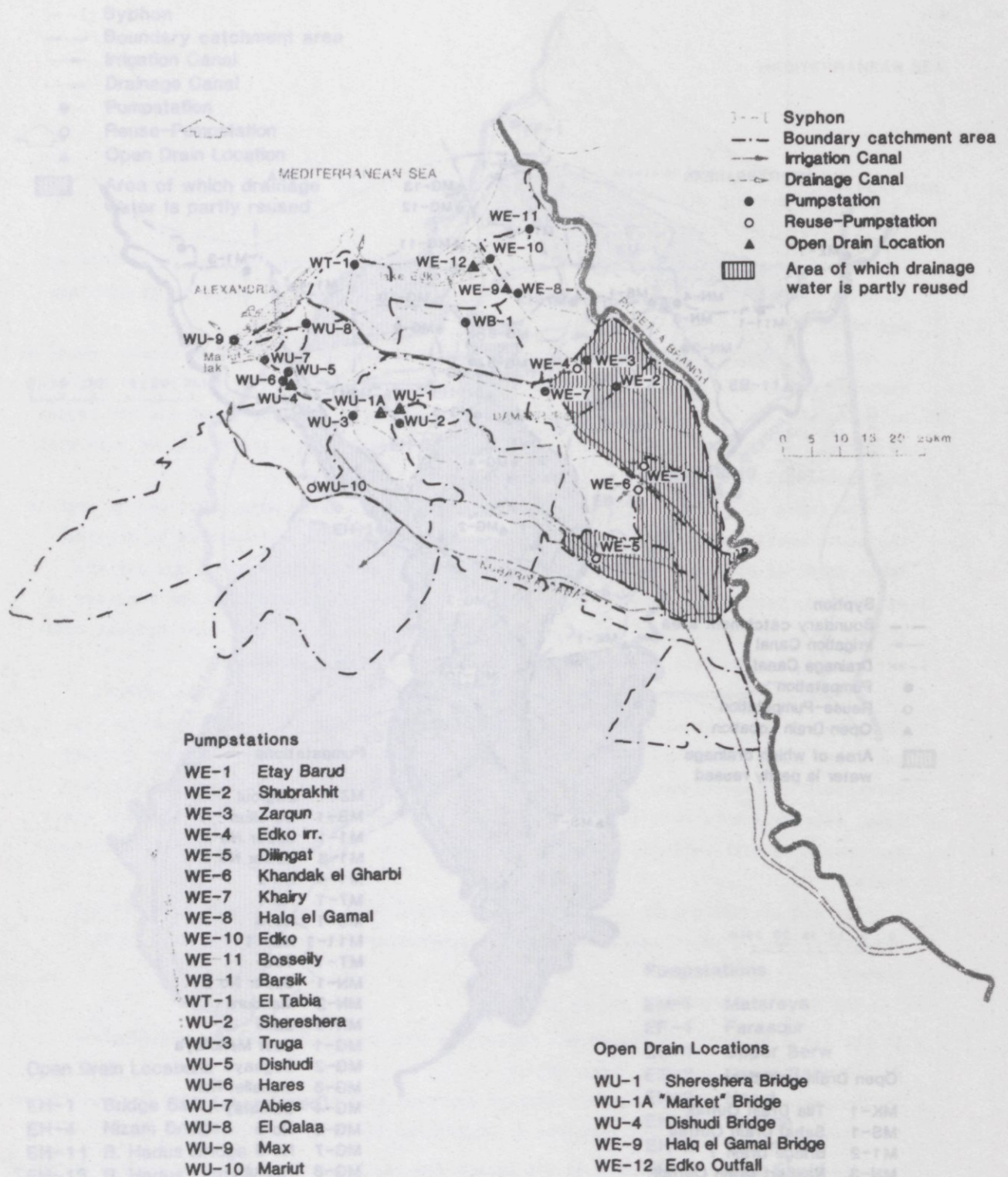


Fig. 3. General view of the network in the Western Delta

2. DATA ELABORATION

In this chapter an overview will be presented of the procedure of data elaboration. Two types of data are distinguished; discharges and chemical characteristics of the drainage water. Concerning the latter, the parameters given are the total dissolved salts, the electrical conductivity, the sodium adsorption ratio and the adjusted sodium adsorption ratio. These parameters are calculated as monthly averages and weighted with respect to discharges.

The elaboration procedure for chemical analysis is in brief as follows: first entering the basic data on computer files. Then the total charge of both cations and anions is calculated. Simultaneously the electrical conductivity is calculated, based on the contribution of each ion to this conductivity. Results are listed and a manual check is performed. Deviations due to mistypings or wrong calculations are restored. If no reason can be found for the detected deviations, results are rejected.

Discharges can be obtained in different ways. Data concerning discharges of pumping stations: lifting head, number of operation hours and the monthly discharge itself are obtained from the Ministry of Irrigation. Based on calibration measurements by DRI a rating curve for the pumping station is established. The average monthly capacity, corresponding to the lifting head is read from this curve and multiplied with the number of operation hours.

If, however, only discharges are provided, these are multiplied by the efficiency of the pumping station.

Discharges at open drainage canal locations may have been determined by current meter or through a stage discharge relation by measuring the water level.

These discharges are measured with certain time intervals. During these intervals the discharge is assumed to change linearly with time. The total discharge per month is obtained by integration with respect to time.

During 1984 on some locations level recorders have been installed and continuous measurement of the level took place. In this case, for the period concerned, the average water level during 10-day periods has been calculated and the corresponding discharge during this decade has been obtained from the stage discharge relation.

2.1. CALIBRATION OF PUMPING STATIONS

For each pump unit the relationship between lifting head and discharge has been determined. During the measurement a more or less steady state situation does exist. The water levels at the suction and delivery side are measured just before and after the discharge measurements.

Discharges are determined, using the current meter, for which a relation is available between the flow velocity and the rotation rate of the meter. Regularly this relation is recalibrated by the Hydraulic Research Institute at the Delta Barrage.

The cross-section at the suction side is subdivided into a grid with meshes of $0.5 \times 0.5 \text{ m}^2$. The velocity in each node is measured during 30 seconds. Multiplying this velocity with the representative area, gives its contribution to the total discharge. In general at least three calibrations per pump unit are performed at lifting heads more or less representing the full range, at which the station is operating.

For the production of this yearbook all the calibration results of the pump units of each pumping station are combined and the best fitting curve is matched. For some pump stations, however, where the units have distinctly different design capacities the discharge relation has been established for each (group of) unit(s) separately, corresponding with the design capacities.

The average efficiency of a pumping station can be obtained by dividing its capacity, pertaining to the average lifting head, by the guarantee capacity. The guarantee capacity is used by the Ministry of Irrigation to calculate the total discharge from the number of operation hours. This capacity is more or less the capacity of new pumps, operating at average expected lifting heads.

2.2. STAGE DISCHARGE RELATIONS

The relationship between discharge and water level, the so called stage discharge relation, can only exist under certain conditions. The first condition is steady state flow, where the slope of the energy line is identical to the slope of the bottom. If changes in discharge occur only very slowly, no significant deviations from the steady state conditions will occur.

A second condition is that the shape of the cross-section is regular and the hydraulic roughness is almost constant.

The water level should not be affected by changing conditions downstream of the observation location.

If all conditions are fulfilled the discharge is a function of the water depth (LAMBIE, 1978):

$$Q = a.H^b \quad \text{m}^3.\text{s}^{-1}$$

In some cases H is not the real water depth, but some height above a level at which the discharge is zero. The constants a and b are derived from the calibration measurements. If not explicitly measured, the water level at which the discharge is zero, can be determined by curve-fitting.

The squared correlation coefficient should be higher than some minimum value, depending on the number of observations. A value of 0.95 is required when the number of observation is less than 5 and 0.90 when this number is less than 10 but more than 5 (ROEST, 1983). For practical applications this value must be higher than 0.5.

If no satisfactory squared correlation coefficient has been obtained, either back-water effects or non-steady state conditions have been met.

The discharge at a certain date can now be determined by measuring the water level and reading the pertaining discharge from the stage discharge curve.

2.3. DATA CHECKING CHEMICAL ANALYSIS

At the DRI-laboratory the concentration of Ca, Mg, Na, K, CO₃, HCO₃ and Cl has been determined. From the difference in total charge of the cations and the anions, the concentration of SO₄, has been calculated. Also the EC and pH is measured.

Data checking includes first the calculation of the total charge of the anions and the cations. If typing errors during data entry occur, the sum of the charges is not zero.

A second check is obtained by calculating the electrical conductivity and comparing with the measured one.

Basis for this calculation is the assumption, that the EC of a solution, containing several different ions, is the sum of the contributions of the single ions. For the latter empirical relationships have been developed (ROEST, 1983). If the difference between calculated and measured EC is more than 10%, an error may be assumed and the original data must be compared with the data entered. In case of deviations the entered data are restored, otherwise this set of data has been rejected for further elaboration.

2.4. DATA PRESENTATION

For the pumping stations the discharge provided by the Ministry of Irrigation in million cubic meter per month has been included in the data presentation. The number of operation hours and average lifting head per month have been obtained.

Rating curves are available from calibration measurements.

To distinguish the different situations, a code is used to indicate the particular situation.

In Table 1 the codes and the meaning of code has been listed.

Table 1. Codes and their meaning

Code	Description
11	- Pump station; discharge known in hours of operation; calibration; curve established
12	- Pump station; discharge not known in hours; calibration curve established
13	- Pump station; no calibration curve
21	- Open drain; H _m measured; linear relation between discharge and H _m
22	- Open drain; H _m measured; power curve relation between water depth and discharge
23	- Open drain; float discharge measured; no good calibration relation available
24	- open drain or pump station; no discharge known or measured

For each location this code has been presented in the header, together with the name and code name of the location, the year and the stage discharge relation or rating curve. The square of the correlation coefficient is mentioned. The value of this item has been set to zero, in cases where no rating curve is available and in case the average capacity is used.

The total discharge per year is calculated only in those situation that data of all months are available.

The same holds for the average water quality parameters.

The discharges at open drainage canal locations have been calculated on a monthly basis. For the periods during which not yet continuous records of levels have been obtained, it has been assumed that the discharge rate in between two succeeding measurement dates changes linearly, with time. The course of the discharge rate is described by a polygon. The discharge per month has been obtained by integrating this polygon with respect to time, between the time boundaries, belonging to that particular month (see Fig. 4).

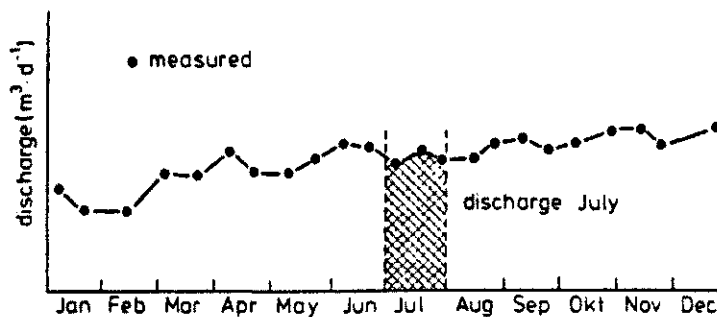


Fig. 4. Schematic presentation, determination discharge per month

The average water quality per month is obtained in a similar way. In this case the concentration of each ion has been multiplied by the discharge rate and with the ionic load thus obtained, a polygon has been constructed. Again an integration per month has been done and the result has been divided by the monthly discharge. With the average composition of the drainage water obtained the water quality parameters have been calculated.

The salinity, expressed in parts per million (ppm) has been calculated by multiplying the concentration of each ion (in meq.liter^{-1}) by its atomic weight, divided by its charge, and adding the results.

The cation composition of irrigation water determines its potential for sodium hazards for which the sodium adsorption ratio is a parameter.

This parameter has been defined as:

$$\text{SAR} = \frac{[\text{Na}]}{[\text{Ca}] + [\text{Mg}]/\frac{1}{2}} \quad (\text{mmol}^{\frac{1}{2}}\text{l}^{\frac{1}{2}})$$

In general four categories are used with limits 8, 12 and 18, where irrigation water having $\text{SAR} > 18$ is in general unsuitable for irrigation except at low salinity ($\text{ppm} < 750$) and using amendments.

A second parameter to classify the sodium hazard is the adjusted SAR. It has been defined as:

$$\text{adj.SAR} = \text{SAR}(9.4 - \text{pH}_c) \quad (\text{mmol}^{1/2}\text{l}^{-1})$$

$$\text{where: } \text{pH}_c = \text{pK}'_2 - \text{pK}'_c + \text{p}(\text{Ca} + \text{Mg}) + \text{pALK}$$

where $\text{p}(\text{Ca} + \text{Mg})$ and pALK are the negative value of the logarithm of the molar concentration of $(\text{Ca} + \text{Mg})$ and equivalent concentration of titratable base ($\text{CO}_3 + \text{HCO}_3$) respectively and pK'_2 and pK'_c are the negative value of the logarithms of the second dissociation constant of H_2CO_3 and of the solubility product of CaCO_3 , respectively, both corrected for ionic strength. At pH_c values less than 8.4 the soluble calcium tends to precipitate, while at values greater than 8.4 there is a tendency to dissolve lime (EL GUINDY, 1979).

Values of adj. SAR less than 6 do not cause permeability problems when irrigation water having that value is used. Problems increase when the value increases from 6 to 16 where values above 16 cause severe permeability problems.

Salinization hazards are classified by the total dissolved salt parameter, but are related to both drainage conditions and crop sensitivity. In general no problems have to be expected on poorly drained soils when the TDS is less than 750 ppm and when a normal irrigation is practiced.

3. DATA ON DISCHARGE AND WATER QUALITY 1984

3.1. DISCHARGE, SALINITY AND SODIUM HAZARD

3.1.1. Eastern Delta

LOCATION : EBO1 BILBEIS BRIDGE YEAR : 1984 CODE : 21
 $Q = 53.330 - 10.200 * HM ; R2 = [0.690]$

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- 34.91	1.76	1105.	4.75	11.21
2	- 33.34	1.28	815.	3.92	8.71
3	- 34.96	0.98	654.	2.83	6.25
4	- 33.27	1.19	857.	2.77	6.51
5	- 35.19	1.20	842.	3.48	7.88
6	- 34.86	-	-	-	-
7	- 36.70	1.17	859.	3.22	7.80
8	- 38.18	1.15	880.	3.96	9.26
9	- 35.12	1.23	871.	3.36	8.34
10	- 34.67	1.33	1002.	3.44	8.84
11	- 34.06	1.42	1029.	3.90	8.13
12	- 35.20	1.16	886.	2.50	5.75
1984	- 420.46	-	-	-	-

LOCATION : EBO2 GALYUBEYA BRIDGE YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- -	1.39	928.	4.14	9.74
2	- -	0.96	652.	2.82	6.03
3	- -	0.79	531.	1.71	3.62
4	- -	0.97	678.	2.41	5.12
5	- -	0.88	590.	2.71	5.49
6	- -	-	-	-	-
7	- -	-	-	-	-
8	- -	1.02	762.	2.66	6.09
9	- -	0.96	681.	2.14	5.08
10	- -	0.97	719.	2.05	5.06
11	- -	1.04	727.	2.55	4.87
12	- -	0.87	640.	2.36	4.74
1984	- -	-	-	-	-

LOCATION : EBO3 WADI PS YEAR : 1984 CODE : 11
 $Q = 7.632 - (1.140) * H ; GCAP = 4.645 HAV = 2.620$

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	27.30 23.61	1.23	844.	3.19	7.49
2	10.82 8.02	1.57	1122.	3.41	8.86
3	58.49 43.30	0.65	445.	1.80	3.61
4	45.03 31.71	0.99	694.	2.32	5.09
5	47.86 34.83	1.19	806.	3.28	7.06
6	59.80 43.11	-	-	-	-
7	62.59 45.07	1.05	728.	2.79	6.22
8	52.66 40.28	-	-	-	-
9	50.91 37.64	1.04	726.	2.22	5.41
10	46.00 36.22	1.13	806.	2.34	5.95
11	41.92 33.38	1.04	736.	2.79	5.51
12	20.21 18.53	1.20	932.	3.50	8.13
1984	523.59 395.70	-	-	-	-

LOCATION : E804 WADI RAILWAY BRIDGE YEAR : 1984 CODE : 21
 Q = 192.220 - 20.680* HM ; R2 = [0.760]

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	65.73	1.75	1105.	5.40	12.70
2	-	-	-	-	-	-
3	-	47.39	1.10	730.	2.56	5.89
4	-	49.57	1.11	795.	3.05	6.94
5	-	58.13	1.10	761.	3.13	6.96
6	-	48.91	-	-	-	-
7	-	54.46	1.15	808.	2.64	6.50
8	-	74.67	1.02	698.	2.47	5.83
9	-	75.03	1.02	724.	2.73	6.51
10	-	62.36	1.15	874.	3.13	7.63
11	-	61.31	1.35	920.	3.40	6.67
12	-	84.06	1.16	772.	2.73	5.93
1984	-	-	-	-	-	-

LOCATION : E805 SAADA BRIDGE YEAR : 1984 CODE : 21
 Q = 132.130 - 19.460* HM ; R2 = [0.850]

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	79.17	1.39	930.	3.78	9.03
2	-	70.74	0.98	701.	2.75	6.24
3	-	64.96	0.84	574.	2.29	4.90
4	-	67.10	0.98	686.	2.42	5.24
5	-	74.50	1.20	807.	4.07	8.76
6	-	72.67	-	-	-	-
7	-	80.86	1.01	677.	2.22	5.17
8	-	96.22	1.09	731.	3.35	7.36
9	-	85.29	1.73	1269.	9.51	20.89
10	-	87.02	1.10	824.	2.91	7.21
11	-	81.36	1.13	820.	3.06	6.37
12	-	100.45	1.00	770.	3.14	6.96
1984	-	960.34	-	-	-	-

LOCATION : E806 SAADA PB YEAR : 1984 CODE : 11
 Q = 0.735 - (0.000) * H ; GCAP = 0.735 HAV = 0.000

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	1.94	1.56	1.78	1150.	5.23	12.70
2	1.16	1.16	1.29	846.	3.95	9.00
3	1.72	1.37	0.84	536.	2.47	4.90
4	2.35	1.69	1.03	697.	2.53	5.55
5	2.59	2.13	1.05	693.	3.26	6.95
6	3.15	2.49	-	-	-	-
7	3.22	2.74	0.98	632.	3.70	7.52
8	3.77	3.05	0.98	646.	2.90	6.12
9	2.97	2.42	1.12	771.	2.77	6.69
10	2.97	2.42	1.19	852.	2.66	6.73
11	2.58	2.04	1.26	881.	2.84	5.64
12	3.23	2.55	0.96	692.	2.51	5.13
1984	31.65	25.63	-	-	-	-

LOCATION : E807 SAUD BRIDGE YEAR : 1984 CODE : 21
 Q = 69.690 - 18.680*HM ; R2 = [0.640]

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	88.67	1.48	988.	4.22	10.03
2	-	86.48	1.04	743.	3.28	7.06
3	-	75.11	0.95	639.	1.99	4.33
4	-	75.08	1.06	751.	2.61	5.87
5	-	82.06	1.04	721.	3.14	6.85
6	-	76.10	-	-	-	-
7	-	81.17	0.81	542.	2.32	4.74
8	-	93.94	0.97	695.	3.08	6.88
9	-	85.32	1.02	721.	2.99	7.08
10	-	90.07	1.09	854.	2.91	7.15
11	-	86.34	1.18	834.	3.09	5.84
12	-	102.99	1.02	727.	2.70	5.24
1984	-	1023.34	-	-	-	-

LOCATION : E808 BAHR BAGAR BRIDGE YEAR : 1984 CODE : 24

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	-	1.51	1015.	3.80	9.25
2	-	-	1.07	764.	3.01	6.76
3	-	-	0.94	615.	2.53	5.42
4	-	-	1.11	773.	3.18	6.95
5	-	-	1.09	742.	3.31	7.12
6	-	-	-	-	-	-
7	-	-	1.10	742.	2.89	6.73
8	-	-	1.04	699.	2.94	6.52
9	-	-	1.02	728.	2.91	6.95
10	-	-	1.11	820.	2.77	6.92
11	-	-	1.18	832.	3.24	6.23
12	-	-	1.02	754.	2.62	5.49
1984	-	-	-	-	-	-

LOCATION : E809 BAHR BAGAR IRR PB YEAR : 1984 CODE : 11
 Q = 0.364 - (0.000) * H ; QCAP = 0.364 HAV = -1.000

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	8.25	3.60	1.09	742.	2.98	6.75
2	9.43	2.37	1.12	747.	2.53	5.79
3	7.20	3.14	0.79	517.	1.63	3.50
4	8.62	3.77	0.68	452.	1.63	3.04
5	8.05	3.52	0.96	652.	3.68	7.32
6	7.70	3.36	-	-	-	-
7	9.48	4.14	1.09	725.	2.96	6.95
8	10.25	4.48	0.92	619.	2.63	5.71
9	8.79	3.84	0.98	688.	2.67	6.31
10	9.05	3.94	0.97	693.	2.35	5.60
11	9.37	4.09	0.73	477.	1.84	2.90
12	9.12	3.98	0.91	630.	2.19	4.37
1984	101.31	44.24	-	-	-	-

LOCATION : EB10 BHR BAGAR PS YEAR : 1984 CODE : 11
 Q = 6.112 - (0.000) * H ; QCAP = 6.112 MAV = 1.670

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	23.08 23.08	5.76	3910.	14.55	37.50
2	8.03 8.03	9.39	6265.	18.88	52.27
3	13.11 13.11	5.24	3214.	11.59	29.31
4	16.94 16.94	4.65	2937.	9.81	22.82
5	13.75 13.75	5.04	3275.	11.06	29.17
6	10.91 10.91	-	-	-	-
7	12.61 12.61	6.90	4200.	12.96	34.99
8	19.16 19.16	5.18	3103.	10.73	26.78
9	17.86 17.87	6.53	4020.	12.57	33.90
10	17.73 17.73	6.22	4243.	11.88	32.98
11	14.76 14.76	6.44	4668.	13.80	32.37
12	23.72 23.70	4.87	3538.	12.42	30.15
1984	191.66 191.67	-	-	-	-

LOCATION : EB11 BHR BAGAR OUTFALL YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- -	2.65	1603.	8.31	19.44
2	- -	2.37	1547.	5.52	13.35
3	- -	1.91	1198.	4.37	10.45
4	- -	1.92	1252.	5.08	11.69
5	- -	1.57	1020.	5.32	11.40
6	- -	-	-	-	-
7	- -	-	-	-	-
8	- -	-	-	-	-
9	- -	1.94	1215.	4.39	11.18
10	- -	1.84	1270.	4.43	11.50
11	- -	2.24	1596.	6.42	13.88
12	- -	1.45	1099.	4.55	10.56
1984	- -	-	-	-	-

LOCATION : EB12 BATIKH CANAL YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- -	0.91	617.	2.59	5.66
2	- -	0.62	435.	1.73	3.44
3	- -	0.48	307.	1.29	2.25
4	- -	0.49	328.	1.22	2.12
5	- -	-	-	-	-
6	- -	-	-	-	-
7	- -	0.81	495.	2.89	5.41
8	- -	0.78	492.	2.24	4.48
9	- -	0.82	508.	1.14	2.50
10	- -	0.74	532.	1.88	4.20
11	- -	0.61	397.	1.34	2.06
12	- -	0.73	498.	1.70	3.03
1984	- -	-	-	-	-

LOCATION : EB4A BILBEIS SYPHON

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	-	1.57	1026.	4.54	10.93
2	-	-	1.06	725.	4.14	8.66
3	-	-	1.05	738.	2.96	6.74
4	-	-	1.17	846.	3.26	7.46
5	-	-	1.11	776.	3.72	8.12
6	-	-	-	-	-	-
7	-	-	1.06	749.	2.65	6.27
8	-	-	1.04	731.	2.86	6.57
9	-	-	1.05	754.	2.81	6.87
10	-	-	1.18	875.	2.68	6.87
11	-	-	1.23	885.	3.37	7.10
12	-	-	1.02	767.	2.70	5.86
1984	-	-	-	-	-	-

LOCATION : EB4B GALYUBEA SYPHON

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	-	1.46	985.	4.50	10.64
2	-	-	1.09	722.	2.70	6.04
3	-	-	1.02	688.	3.56	7.52
4	-	-	1.17	807.	2.69	5.57
5	-	-	1.07	724.	3.18	6.85
6	-	-	-	-	-	-
7	-	-	1.06	734.	2.82	6.57
8	-	-	-	-	-	-
9	-	-	1.01	707.	2.23	5.42
10	-	-	1.14	845.	2.67	6.74
11	-	-	1.13	799.	2.48	4.94
12	-	-	0.99	737.	2.02	4.38
1984	-	-	-	-	-	-

LOCATION : EF01 FARASOUR PS

YEAR : 1984

CODE : 13

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	12.48	-	4.47	2641.	10.50	25.82
2	10.22	-	3.57	2296.	6.28	15.64
3	18.10	-	2.07	1286.	6.78	14.36
4	17.33	-	2.18	1349.	6.08	12.63
5	18.46	-	2.10	1348.	7.07	15.10
6	22.85	-	-	-	-	-
7	33.53	-	2.00	1199.	6.82	15.65
8	30.15	-	2.31	1412.	7.47	17.53
9	34.13	-	1.96	1200.	5.47	13.26
10	27.43	-	1.62	1082.	5.14	12.13
11	20.02	-	2.32	1524.	6.89	12.95
12	16.04	-	3.00	1836.	8.18	18.59
1984	260.74	-	-	-	-	-

LOCATION : EH02 HANUT PS YEAR : 1984 CODE : 11
 G = 4.815 - (0.000) * H ; GCAP = 4.815 HAV = 2.290

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	13.60 10.80	1.49	948.	4.04	9.34
2	7.90 6.88	1.59	1115.	4.43	10.55
3	27.76 23.96	0.96	623.	2.82	5.82
4	33.20 28.64	1.12	742.	3.02	5.81
5	30.28 25.20	1.11	744.	3.62	7.53
6	29.75 25.10	-	-	-	-
7	30.23 25.71	1.13	767.	3.85	8.74
8	29.89 24.56	1.20	809.	3.66	8.28
9	30.43 24.20	1.13	801.	2.95	7.13
10	25.61 19.78	1.14	826.	3.05	7.29
11	20.55 16.45	0.95	640.	2.70	4.55
12	8.11 6.69	1.39	981.	3.43	7.79
1984	287.31 237.96	-	-	-	-

LOCATION : EH03 BADAGA PS YEAR : 1984 CODE : 11
 G = 5.778 - (0.616) * H ; GCAP = 4.977 HAV = 1.300

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	9.32 8.94	1.98	1216.	4.97	11.95
2	1.58 1.65	5.65	3972.	13.74	39.44
3	9.27 9.40	1.71	1057.	5.06	11.20
4	9.94 10.07	2.14	1351.	6.44	12.72
5	9.38 9.34	1.97	1247.	6.07	12.76
6	9.61 9.72	-	-	-	-
7	10.96 10.95	3.38	2131.	14.66	31.63
8	13.27 13.17	1.99	1247.	6.22	14.21
9	15.52 15.35	1.72	1078.	4.61	11.12
10	14.14 13.47	1.75	1097.	4.99	11.68
11	9.45 9.41	1.88	1270.	4.61	9.27
12	13.16 12.77	1.48	923.	3.49	7.41
1984	125.60 124.25	-	-	-	-

LOCATION : EH04 NIZAM BRIDGE YEAR : 1984 CODE : 21
 G = 38.535 - 7.030 * H ; R2 = [0.970]

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- -	-	-	-	-
2	- 21.68	1.81	1233.	6.25	13.98
3	- 22.20	0.98	646.	3.08	6.39
4	- 19.87	1.00	636.	2.61	4.78
5	- 17.10	1.10	701.	3.54	6.98
6	- -	-	-	-	-
7	- 21.65	0.83	562.	2.75	5.75
8	- 26.26	1.01	653.	3.66	7.55
9	- 29.56	1.12	722.	3.33	7.43
10	- 29.25	1.10	771.	3.61	8.18
11	- 23.90	1.10	738.	3.44	6.23
12	- 27.89	1.18	785.	3.94	8.05
1984	- -	-	-	-	-

LOCATION : EHO5 NIZAM PS YEAR : 1984 CODE : 11
 Q = 4.269 - (0.618) * H ; GCAP = 3.478 HAV = 1.280

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	17.93	18.07	1.65	1009.	4.69	10.59
2	3.24	3.44	3.36	2220.	6.18	17.11
3	18.71	18.10	1.09	697.	2.98	6.24
4	20.26	20.78	1.37	879.	3.18	6.30
5	22.94	23.33	1.18	762.	4.62	9.23
6	16.24	16.08	-	-	-	-
7	19.40	19.56	1.41	946.	4.91	11.35
8	22.18	22.15	1.40	906.	4.78	10.53
9	22.82	21.99	1.36	872.	4.02	9.24
10	21.60	20.81	1.29	879.	4.01	9.27
11	13.78	13.41	1.14	764.	3.35	6.02
12	15.51	14.81	1.21	796.	3.89	7.88
1984	214.61	212.52	-	-	-	-

LOCATION : EHO6 BANI EBEID PS YEAR : 1984 CODE : 11
 Q = 7.515 - (1.241) * H ; GCAP = 5.045 HAV = 1.990

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	27.61	25.05	2.51	1485.	5.73	13.62
2	5.92	6.40	5.55	3529.	7.38	21.53
3	21.83	21.98	1.58	943.	4.58	9.62
4	21.20	19.29	2.16	1326.	4.84	9.46
5	18.31	18.43	1.57	980.	4.60	9.64
6	21.02	21.16	-	-	-	-
7	31.03	33.55	2.42	1460.	6.37	15.73
8	35.96	39.77	1.57	927.	3.82	8.75
9	39.65	39.92	1.51	899.	3.59	8.49
10	36.92	37.22	1.63	1061.	4.27	10.07
11	24.70	24.86	1.99	1345.	4.55	9.08
12	29.83	29.28	1.71	1084.	4.30	9.17
1984	313.58	316.91	-	-	-	-

LOCATION : EHO7 ADD GASSABI PS YEAR : 1984 CODE : 11
 Q = 6.008 - (0.000) * H ; GCAP = 6.008 HAV = 2.240

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	24.92	19.96	2.64	1592.	7.05	16.96
2	8.48	6.79	3.21	2104.	7.38	19.56
3	29.02	23.25	2.13	1243.	5.65	12.28
4	26.97	21.61	2.93	1832.	9.68	18.94
5	23.76	19.03	2.35	1462.	5.96	13.53
6	26.46	21.20	-	-	-	-
7	38.23	30.63	2.24	1429.	6.20	15.44
8	44.41	35.58	1.87	1186.	4.87	11.76
9	45.71	36.62	2.25	1409.	5.30	13.40
10	38.77	31.06	1.87	1266.	4.92	12.42
11	23.76	19.03	2.09	1406.	4.93	9.43
12	-	-	-	-	-	-
1984	-	-	-	-	-	-

LOCATION : EH08 MAIN GASSABI PS YEAR : 1984 CODE : 11
 2 UNITS: Q = 5.340 - 0.242 * H; GCAP = 4.791; HAV = 2.27
 1 UNITS: Q = 8.190 - 0.584 * H; GCAP = 6.864; HAV = 2.27

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI !	EC MMHD/CM !	TDS PPM !	SAR !	ADJ SAR !
1	16.81	16.87	5.12	3020.	11.99	29.99
2	5.38	5.19	8.04	5216.	12.67	35.62
3	16.42	16.92	3.11	1903.	7.81	17.96
4	16.33	17.35	3.83	2399.	8.02	17.34
5	15.25	15.06	4.36	2899.	7.80	19.55
6	19.01	19.12	-	-	-	-
7	27.40	29.21	3.81	2629.	9.25	23.45
8	26.50	29.84	3.83	2399.	9.34	23.01
9	28.13	32.08	3.62	2174.	8.47	21.03
10	23.36	26.44	3.33	2217.	8.29	21.35
11	17.71	17.81	3.54	2463.	7.88	16.43
12	17.57	17.19	3.00	1929.	6.88	15.78
1984	229.87	243.08	-	-	-	-

LOCATION : EH09 GENEENA PS YEAR : 1984 CODE : 11
 Q = 6.630 - (0.843) * H ; GCAP = 5.231 HAV = 1.660

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI !	EC MMHD/CM !	TDS PPM !	SAR !	ADJ SAR !
1	13.88	14.07	1.75	1123.	4.71	10.86
2	4.75	4.83	2.85	2064.	6.27	16.86
3	17.39	17.72	0.98	618.	3.37	6.65
4	11.70	11.96	1.32	805.	4.36	7.75
5	12.31	12.53	1.17	752.	3.26	6.95
6	18.27	18.96	-	-	-	-
7	26.46	25.94	1.13	786.	3.45	7.94
8	33.59	41.08	0.85	525.	2.46	4.73
9	27.36	26.82	1.05	685.	2.79	6.42
10	18.05	22.02	1.10	746.	3.57	7.99
11	13.52	13.73	1.40	924.	4.48	7.82
12	15.26	15.40	-	-	-	-
1984	212.54	225.08	-	-	-	-

LOCATION : EH10 ERAD PS YEAR : 1984 CODE : 11
 Q = 12.424 - (1.525) * H ; GCAP = 7.864 HAV = 2.990

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI !	EC MMHD/CM !	TDS PPM !	SAR !	ADJ SAR !
1	42.83	42.40	3.14	1825.	6.69	16.21
2	13.90	14.18	4.83	3110.	8.12	22.32
3	42.76	41.68	1.77	1060.	4.44	9.91
4	39.31	38.57	2.47	1491.	5.89	12.12
5	39.47	38.51	2.19	1397.	6.95	14.67
6	46.72	45.52	-	-	-	-
7	65.69	63.72	2.30	1515.	6.93	16.63
8	77.97	75.95	1.99	1249.	5.88	13.47
9	73.69	71.71	1.98	1222.	5.22	12.59
10	55.83	55.06	2.14	1420.	5.63	13.83
11	43.03	42.22	2.34	1568.	5.90	11.58
12	43.43	42.74	2.42	1519.	5.90	13.07
1984	584.63	572.26	-	-	-	-

LOCATION : EH11 BAHR HADUS BRIDGE YEAR : 1984 CODE : 22
 G = 109.750* (3.000- HM) ** 1.380 R2 = [0.950]

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- 130.89	2.27	1378.	6.55	15.31
2	- 132.60	2.77	1775.	5.63	13.61
3	- 124.44	1.79	1101.	4.47	10.26
4	- 98.03	2.24	1284.	5.37	10.88
5	- 97.99	1.56	978.	4.78	10.48
6	- 97.76	-	-	-	-
7	- 165.41	2.32	1387.	6.58	15.75
8	- 197.53	1.85	1149.	5.58	12.71
9	- 208.75	1.65	1043.	4.54	10.98
10	- 193.87	1.64	1103.	4.72	11.37
11	- 150.98	1.70	1154.	4.16	8.44
12	- 193.70	1.62	1031.	4.10	8.95
1984	- 1791.94	-	-	-	-

LOCATION : EH12 SAFT PB YEAR : 1984 CODE : 11
 G = 8.558 - (0.964) * H ; GCAP = 6.640 HAV = 1.990

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	49.52 44.09	3.44	2131.	11.47	26.97
2	15.39 13.11	6.33	4034.	13.99	37.96
3	46.76 41.22	2.29	1433.	6.13	13.71
4	52.14 46.49	2.33	1438.	5.43	10.99
5	51.73 46.60	2.39	1481.	6.73	14.86
6	38.66 33.43	-	-	-	-
7	57.73 51.03	3.12	2128.	7.96	20.17
8	67.72 60.64	-	-	-	-
9	63.77 58.75	2.48	1436.	3.15	8.34
10	71.09 64.31	1.86	1187.	4.38	10.94
11	52.73 44.58	-	-	-	-
12	65.29 57.71	-	-	-	-
1984	632.53 561.97	-	-	-	-

LOCATION : EH13 BAHR HADUS OUTFALL YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- -	3.13	1850.	7.80	18.90
2	- -	3.29	2045.	7.12	17.31
3	- -	1.97	1186.	5.36	11.71
4	- -	2.23	1351.	5.35	10.93
5	- -	1.84	1160.	5.90	12.93
6	- -	-	-	-	-
7	- -	-	-	-	-
8	- -	1.53	951.	3.71	8.49
9	- -	1.61	1007.	4.05	9.78
10	- -	1.95	1268.	4.52	11.41
11	- -	1.85	1251.	4.57	8.85
12	- -	1.75	1118.	4.49	9.72
1984	- -	-	-	-	-

LOCATION : EH16 ARIN DRAIN

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 DESIGN ! DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	1.13	747.	3.53	7.79
2	-	1.11	752.	3.28	6.88
3	-	1.04	674.	2.93	6.17
4	-	1.03	704.	3.23	6.57
5	-	0.73	517.	2.66	5.16
6	-	-	-	-	-
7	-	1.01	683.	3.75	7.77
8	-	0.95	671.	2.70	5.72
9	-	1.19	801.	2.95	7.04
10	-	0.90	643.	1.72	4.11
11	-	1.03	723.	3.37	6.29
12	-	0.89	664.	3.04	6.25
1984	-	-	-	-	-

LOCATION : E101 BAHR FAGUS AT FAGUS

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 DESIGN ! DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	0.94	630.	2.25	4.99
2	-	0.55	386.	1.28	2.39
3	-	0.53	356.	1.87	3.20
4	-	0.61	408.	1.63	2.86
5	-	0.51	351.	1.41	2.42
6	-	-	-	-	-
7	-	0.52	350.	1.06	2.02
8	-	0.49	355.	1.18	2.25
9	-	0.59	415.	1.45	3.07
10	-	0.70	508.	1.60	3.50
11	-	0.64	431.	1.50	2.32
12	-	0.60	407.	1.08	1.92
1984	-	-	-	-	-

LOCATION : E102 ISMAILIA CANAL

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 DESIGN ! DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	0.37	259.	0.91	1.57
2	-	0.37	245.	0.77	1.25
3	-	0.36	234.	0.66	1.08
4	-	0.42	275.	0.95	1.56
5	-	0.40	264.	0.92	1.47
6	-	-	-	-	-
7	-	-	-	-	-
8	-	0.38	234.	0.61	0.91
9	-	0.41	265.	0.77	1.31
10	-	0.46	292.	0.64	1.15
11	-	0.45	285.	0.90	1.15
12	-	0.43	307.	1.24	1.88
1984	-	-	-	-	-

LOCATION : E103 BHR MOIIS BEF MIX YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	-	0.54	362.	0.91	1.85
2	-	-	0.62	419.	1.15	2.41
3	-	-	0.39	273.	0.90	1.59
4	-	-	0.42	288.	1.14	1.94
5	-	-	0.39	261.	1.85	2.63
6	-	-	-	-	-	-
7	-	-	0.41	258.	1.01	1.64
8	-	-	0.42	251.	0.90	1.38
9	-	-	0.41	258.	0.50	0.88
10	-	-	0.47	319.	0.25	0.44
11	-	-	0.42	271.	0.76	1.08
12	-	-	0.45	301.	1.01	1.75
1984	-	-	-	-	-	-

LOCATION : E104 BHR MOIIS AFT MIX YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	-	1.19	791.	3.97	8.78
2	-	-	1.63	1111.	5.55	11.93
3	-	-	0.75	486.	1.96	3.91
4	-	-	1.03	671.	3.67	6.55
5	-	-	0.88	572.	2.49	4.82
6	-	-	-	-	-	-
7	-	-	0.72	465.	2.15	4.20
8	-	-	0.78	500.	2.15	4.40
9	-	-	0.93	636.	2.60	5.89
10	-	-	0.94	664.	2.65	6.05
11	-	-	0.66	443.	1.28	2.18
12	-	-	0.51	351.	1.14	2.08
1984	-	-	-	-	-	-

LOCATION : EM01 MATAREYA PS YEAR : 1984 CODE : 11
Q = 9.608 - (0.431) * H ; GCAP = 8.431 HAV = 2.730

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	21.77	22.19	6.29	3879.	13.77	34.90
2	11.13	11.83	5.72	3671.	10.23	26.96
3	17.26	18.24	4.66	2884.	12.44	28.89
4	17.45	18.36	5.63	3635.	13.46	31.33
5	15.90	16.87	5.08	3227.	12.50	30.91
6	16.39	17.15	-	-	-	-
7	20.14	21.21	-	-	-	-
8	22.51	24.04	4.98	3167.	14.13	33.67
9	22.84	24.97	5.73	3551.	12.99	33.74
10	25.32	26.62	6.02	4046.	14.02	36.30
11	22.22	23.38	5.52	3801.	11.64	25.66
12	25.21	25.80	5.57	3503.	12.14	28.94
1984	238.14	250.64	-	-	-	-

LOCATION : ES01 UPPER BERUA PS YEAR : 1984 CODE : 11
 G = 17.740 - (1.944) * H ; GCAP = 10.625 HAV = 3.660

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	13.45	19.04	0.99	659.	3.08	6.52
2	4.35	5.84	1.52	1017.	4.06	9.76
3	17.51	22.66	0.74	476.	2.55	4.90
4	13.16	17.67	0.76	496.	2.03	3.60
5	14.23	19.10	0.75	500.	2.20	4.11
6	16.39	21.21	-	-	-	-
7	19.76	25.09	0.87	598.	2.71	5.78
8	23.79	31.94	0.76	475.	1.94	3.93
9	20.85	27.44	0.82	524.	2.08	4.57
10	20.27	26.39	0.72	500.	2.06	4.38
11	15.87	21.08	0.72	465.	1.71	2.79
12	17.37	23.32	0.76	491.	2.07	3.84
1984	197.00	260.77	-	-	-	-

LOCATION : ES02 LOWER BERUA PS YEAR : 1984 CODE : 11
 G = 11.165 - (1.188) * H ; GCAP = 8.587 HAV = 2.170

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	38.98	40.24	1.93	1117.	5.15	11.42
2	15.81	15.93	2.23	1401.	5.72	13.43
3	49.24	51.82	0.87	553.	2.79	5.51
4	42.76	44.07	1.53	954.	4.50	9.35
5	55.20	58.20	1.34	852.	4.80	9.94
6	56.24	63.08	-	-	-	-
7	62.97	72.17	1.43	877.	5.09	10.98
8	61.02	71.58	1.45	863.	4.88	10.61
9	59.99	68.65	1.39	857.	4.24	9.70
10	49.91	53.23	1.42	948.	4.41	10.14
11	47.98	49.48	1.25	819.	3.43	5.94
12	39.72	40.42	1.47	935.	3.99	8.41
1984	579.82	628.85	-	-	-	-

3.1.2. Middle Delta

LOCATION : M101 UPPER PB NO 1 YEAR : 1984 CODE : 11
 Q = 6.490 - (0.330) * H ; GCAP = 5.754 HAV = 2.230

MONTH!	DISCHARGE DESIGN!	10**6 M3 DRI	EC MMHO/CM!	TDS PPM!	SAR!	ADJ SAR!
1	5.59	6.36	1.14	791.	5.22	10.87
2	1.30	1.48	3.55	2338.	12.30	32.34
3	9.26	10.51	1.01	611.	4.32	8.64
4	8.10	9.41	1.07	627.	4.49	7.95
5	4.49	5.27	0.94	589.	2.86	5.49
6	6.54	7.57	1.26	882.	5.65	12.42
7	10.69	12.35	0.89	618.	4.18	8.68
8	5.58	6.41	0.68	486.	3.10	6.13
9	3.34	3.74	1.06	748.	5.18	11.31
10	2.75	2.96	0.53	368.	1.06	1.97
11	1.80	2.09	1.11	758.	3.62	6.33
12	3.43	3.90	0.98	686.	4.36	7.61
1984	62.87	72.04	1.04	687.	4.48	9.13

LOCATION : M102 BRIDGE DRAIN NO 1 YEAR : 1984 CODE : 24

MONTH!	DISCHARGE DESIGN!	10**6 M3 DRI	EC MMHO/CM!	TDS PPM!	SAR!	ADJ SAR!
1	-	-	1.31	864.	5.66	11.90
2	-	-	2.13	1377.	14.17	25.59
3	-	-	1.26	845.	7.66	14.02
4	-	-	1.17	786.	4.78	9.96
5	-	-	1.00	663.	5.19	8.71
6	-	-	1.20	761.	6.15	10.09
7	-	-	1.31	850.	6.94	13.18
8	-	-	1.22	824.	7.18	14.76
9	-	-	1.16	793.	7.05	15.04
10	-	-	0.87	594.	3.93	7.36
11	-	-	0.69	455.	2.58	3.63
12	-	-	1.08	758.	5.44	10.26
1984	-	-	1.19	795.	6.30	12.05

LOCATION : M103 LOWER PB NO 1 YEAR : 1984 CODE : 11
 2 UNITS: Q = 1.900 - 0.000 * H; GCAP = 1.900; HAV = 1.68
 3 UNITS: Q = 4.340 - 0.000 * H; GCAP = 4.340; HAV = 1.68
 3 UNITS: Q = 8.640 - 0.000 * H; GCAP = 8.640; HAV = 1.68
 3 UNITS: Q = 13.010 - 1.330 * H; GCAP = 10.776; HAV = 1.68

MONTH!	DISCHARGE DESIGN!	10**6 M3 DRI	EC MMHO/CM!	TDS PPM!	SAR!	ADJ SAR!
1	42.17	64.33	2.63	1640.	7.75	18.73
2	40.22	29.96	6.15	3847.	15.48	39.06
3	100.47	71.23	3.51	2075.	10.34	22.84
4	144.62	77.45	4.68	2833.	11.87	26.72
5	91.55	82.22	1.64	992.	5.14	10.17
6	111.11	79.96	1.75	1061.	6.17	13.29
7	184.22	101.42	1.55	996.	5.98	13.04
8	146.95	100.30	1.67	1078.	5.77	13.25
9	171.11	105.32	2.42	1466.	7.34	17.51
10	105.18	83.62	3.02	1868.	8.65	19.40
11	61.09	71.76	2.53	1500.	6.58	11.38
12	78.63	61.36	1.76	1210.	5.01	9.94
1984	1277.32	928.94	2.56	1567.	7.79	17.50

LOCATION : M104 PS NO 2 YEAR : 1984 CODE : 11
 G = 9.860 - (0.970) * H ; GCAP = 7.416 HAV = 2.520

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	30.40	28.96	1.84	1132.	5.89	12.86
2	9.59	9.38	4.31	2636.	8.03	21.61
3	33.99	32.38	-	-	-	-
4	32.35	31.18	1.86	1169.	5.66	12.24
5	27.78	27.00	2.07	1295.	7.89	15.55
6	27.65	27.52	2.10	1317.	7.77	16.92
7	40.53	43.32	1.63	1025.	5.79	12.73
8	40.26	42.54	2.38	1440.	8.14	18.71
9	40.59	39.89	2.54	1554.	8.17	19.58
10	33.21	31.63	2.38	1496.	7.00	15.42
11	24.48	24.76	2.73	1718.	7.75	12.98
12	31.02	30.55	1.83	1274.	5.81	11.40
1984	371.85	369.10	-	-	-	-

LOCATION : M111 PS NO 11 YEAR : 1984 CODE : 11
 G = 7.050 - (0.000) * H ; GCAP = 7.050 HAV = 2.790

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	22.27	20.94	1.37	891.	5.05	10.83
2	20.57	19.34	3.04	1897.	7.61	18.50
3	34.53	32.46	1.82	1088.	5.24	11.41
4	32.64	30.68	1.81	1136.	4.72	10.69
5	42.25	39.72	1.34	822.	4.19	8.65
6	48.20	45.30	1.34	824.	4.92	10.63
7	57.24	53.81	1.33	846.	4.23	9.58
8	61.58	57.87	1.13	734.	3.21	7.25
9	66.83	62.82	1.20	768.	3.65	8.43
10	51.95	48.83	1.00	700.	3.38	7.10
11	38.07	35.79	-	-	-	-
12	37.13	34.90	1.17	825.	3.86	7.52
1984	513.26	482.45	-	-	-	-

LOCATION : M701 PS NO 7 YEAR : 1984 CODE : 11
 G = 8.960 - (1.120) * H ; GCAP = 5.600 HAV = 3.000

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	20.05	22.46	2.48	1440.	7.77	16.77
2	7.97	8.93	7.75	4735.	13.29	36.86
3	27.67	30.99	3.42	2056.	8.80	20.34
4	30.28	33.91	3.18	1953.	7.40	17.86
5	27.67	31.01	3.02	1904.	10.27	21.16
6	23.83	26.80	4.00	2509.	11.20	27.93
7	37.01	41.45	3.23	1897.	9.06	21.91
8	33.64	37.68	3.40	1937.	8.51	20.88
9	37.08	41.53	3.38	1960.	8.09	20.13
10	33.55	37.58	5.25	3248.	12.06	28.85
11	25.70	28.79	4.20	2731.	10.03	18.55
12	25.36	28.41	4.69	3347.	12.19	25.87
1984	329.81	369.52	3.74	2326.	9.68	22.95

LOCATION : M001 LOWER PS NO B YEAR : 1984 CODE : 11
 Q = 9.200 - (1.660) * H ; QCAP = 5.614 HAV = 2.160

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	24.79	17.57	3.91	2390.	10.76	26.55
2	7.24	4.87	17.09	10749.	28.70	82.45
3	28.67	21.39	3.14	1890.	8.41	18.54
4	28.36	19.92	3.94	2549.	10.77	24.28
5	26.38	20.39	3.03	1944.	9.15	19.97
6	27.08	20.33	3.47	2260.	10.90	25.96
7	43.17	33.73	3.58	2279.	11.83	26.86
8	34.75	26.68	5.72	3600.	17.60	42.16
9	38.45	29.97	5.03	3060.	12.38	32.04
10	33.29	25.29	4.33	2684.	10.21	23.92
11	27.05	20.91	4.87	3158.	11.32	20.89
12	25.71	19.89	4.82	3433.	12.77	28.00
1984	344.94	260.95	4.42	2828.	12.14	28.64

LOCATION : M001 EAST MENUFEYA PS YEAR : 1984 CODE : 11
 2 UNITS: Q = 8.010 - 0.230 * H ; QCAP = 7.375 ; HAV = 2.76
 3 UNITS: Q = 3.670 - 0.540 * H ; QCAP = 2.180 ; HAV = 2.76

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	12.20	11.20	-	-	-	-
2	2.38	2.35	2.13	1621.	4.46	12.34
3	11.38	10.59	0.77	522.	2.30	4.61
4	9.22	7.12	1.18	793.	2.86	6.44
5	11.81	10.80	0.85	562.	2.55	4.93
6	12.61	12.14	0.70	442.	2.41	4.47
7	11.36	8.24	1.02	689.	3.19	7.14
8	13.79	11.09	1.01	698.	3.88	8.40
9	17.24	12.12	0.91	645.	2.42	5.49
10	10.17	8.43	-	-	-	-
11	10.43	9.12	0.89	592.	1.45	2.60
12	13.79	13.46	0.80	566.	1.35	2.69
1984	136.38	116.66	-	-	-	-

LOCATION : M002 SEGAAYA PS YEAR : 1984 CODE : 11
 Q = 5.540 - (0.440) * H ; QCAP = 5.448 HAV = 0.210

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	16.10	17.41	0.97	675.	2.96	6.38
2	1.85	2.10	3.82	2682.	8.08	23.46
3	15.25	16.56	1.01	646.	4.51	8.56
4	11.35	12.51	1.14	749.	3.88	7.74
5	10.16	11.10	1.10	732.	5.10	9.55
6	12.65	14.01	1.41	933.	4.53	10.40
7	21.95	21.77	1.24	832.	3.55	8.24
8	20.95	21.92	1.26	849.	3.43	7.93
9	24.65	24.30	1.17	806.	3.57	8.31
10	18.63	20.60	1.30	893.	3.88	8.83
11	14.96	16.30	1.37	919.	3.36	5.92
12	16.35	19.71	1.35	979.	3.91	8.02
1984	184.85	198.28	1.24	845.	3.82	8.42

LOCATION : M003 MAHALLET RUH PS YEAR : 1984 CODE : 11
 Q = 2.460 - (0.000) * H ; GCAP = 2.460 HAV = 2.120

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	EC ! DRI !	MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	5.85	5.76	1.66	1088.	5.77	13.87
2	0.68	0.66	3.80	2821.	5.85	18.06
3	4.86	4.78	0.89	608.	2.55	5.30
4	4.90	4.82	0.96	650.	2.15	4.72
5	5.69	5.60	0.82	530.	2.45	4.69
6	5.23	5.15	0.84	542.	3.00	5.89
7	4.89	4.78	1.02	690.	3.10	6.98
8	6.26	6.16	0.97	697.	2.81	6.43
9	7.70	7.57	0.58	390.	1.41	2.72
10	7.43	7.32	0.66	447.	1.58	3.04
11	5.90	5.81	0.92	621.	1.82	3.13
12	8.51	8.38	1.04	749.	2.74	5.45
1984	67.90	66.78	0.96	654.	2.71	5.74

LOCATION : M004 SEMATAY PS YEAR : 1984 CODE : 11
 Q = 6.590 - (1.250) * H ; GCAP = 4.553 HAV = 1.630

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	EC ! DRI !	MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	29.71	24.97	0.96	648.	2.42	5.33
2	7.55	7.98	3.14	1995.	5.18	14.01
3	31.64	28.26	1.23	777.	3.64	7.71
4	33.37	31.08	1.31	837.	3.77	8.03
5	33.77	32.28	1.11	725.	3.48	7.03
6	35.82	33.74	1.04	680.	3.74	7.84
7	43.38	39.79	1.25	833.	4.29	9.57
8	41.93	35.17	1.35	908.	4.97	11.04
9	40.73	36.36	1.28	871.	3.77	8.97
10	37.76	31.76	1.23	827.	3.54	7.92
11	26.30	23.48	1.37	904.	3.59	6.17
12	30.75	27.82	1.35	955.	3.97	7.88
1984	392.71	352.70	1.27	843.	3.82	8.37

LOCATION : M005 PS NO 5 YEAR : 1984 CODE : 11
 Q = 6.500 - (0.520) * H ; GCAP = 6.094 HAV = 0.780

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	EC ! DRI !	MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	12.91	13.36	1.17	779.	5.12	10.87
2	3.13	3.52	3.96	2545.	8.04	22.55
3	14.76	14.76	1.50	926.	4.76	10.39
4	14.45	14.46	1.73	1042.	5.60	11.97
5	11.55	11.89	1.80	1149.	6.69	14.03
6	17.34	17.42	1.39	880.	4.65	10.51
7	26.14	26.00	1.16	756.	3.58	8.12
8	24.18	24.07	1.56	1027.	5.37	12.64
9	31.92	31.46	1.54	1003.	4.89	11.64
10	19.99	20.79	1.60	1039.	4.79	10.71
11	14.51	14.97	1.49	952.	3.75	6.43
12	14.36	13.34	1.60	1134.	4.79	10.03
1984	205.24	206.04	1.53	990.	4.88	11.02

LOCATION : MG06 GHARBIA BRIDGE NO 6 YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 DESIGN ! DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !	
1	-	-	1.29	873.	4.50	10.06
2	-	-	2.87	1829.	5.36	14.44
3	-	-	1.60	1013.	4.49	10.15
4	-	-	1.35	847.	3.23	6.83
5	-	-	1.21	774.	3.56	7.00
6	-	-	1.19	766.	4.37	9.15
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	1.38	935.	4.11	9.91
10	-	-	1.43	957.	4.13	9.46
11	-	-	1.39	905.	3.79	6.35
12	-	-	1.37	963.	4.01	8.21
1984	-	-	-	-	-	-

LOCATION : MG07 PS NO 6 YEAR : 1984 CODE : 11
 $Q = 7.230 - (0.860) * H$; $QCAP = 5.510$ HAV = 2.000

MONTH!	DISCHARGE 10**6 M3 DESIGN ! DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !	
1	10.33	11.54	2.00	1255.	6.25	13.61
2	1.39	1.61	11.44	7707.	21.57	63.52
3	11.90	12.91	3.29	1943.	12.68	26.12
4	13.13	14.46	3.99	2420.	9.08	20.92
5	8.46	9.54	4.89	3032.	13.15	28.61
6	12.09	13.62	-	-	-	-
7	18.42	19.64	3.30	1922.	8.16	19.85
8	16.24	17.61	3.79	2237.	9.59	24.06
9	16.00	17.32	4.11	2484.	9.60	24.61
10	14.35	15.56	3.07	1865.	7.67	17.24
11	10.84	11.75	3.03	1985.	7.99	14.30
12	11.48	12.46	4.03	2840.	11.26	23.06
1984	144.63	158.03	-	-	-	-

LOCATION : MG08 HAMUL PS YEAR : 1984 CODE : 11
 1 UNITS: $Q = 11.630 - 1.930 * H$; $QCAP = 10.530$; HAV = 0.57
 2 UNITS: $Q = 8.240 - 0.000 * H$; $QCAP = 8.240$; HAV = 0.57

MONTH!	DISCHARGE 10**6 M3 DESIGN ! DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !	
1	7.19	6.49	1.20	787.	3.43	7.42
2	3.44	3.21	4.68	3107.	7.87	23.29
3	36.16	29.22	0.98	618.	3.36	6.56
4	16.84	14.55	1.76	1164.	4.10	9.61
5	42.99	35.08	1.63	1028.	5.62	11.13
6	37.97	32.39	1.36	812.	5.24	10.62
7	28.37	25.02	1.78	1049.	4.84	11.35
8	37.00	32.89	1.42	809.	3.48	7.64
9	37.67	35.16	1.94	1179.	5.09	12.23
10	8.78	10.13	2.77	1839.	5.78	14.06
11	26.46	23.05	1.25	768.	3.66	5.51
12	3.83	4.72	1.58	1108.	4.62	9.41
1984	286.70	251.91	1.60	986.	4.58	10.03

LOCATION : MG09 PS NO 4 YEAR : 1984 CODE : 11
 Q = 11.220 - (1.510) * H ; GCAP = 7.143 HAV = 2.700

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	25.71	24.45	1.18	747.	4.62	9.26
2	9.80	9.33	2.32	1480.	5.43	13.29
3	26.71	25.43	1.41	853.	4.09	8.56
4	27.53	25.97	1.44	911.	4.66	9.82
5	24.66	23.48	1.51	934.	5.64	10.83
6	29.23	28.77	1.64	1209.	7.95	16.79
7	45.56	43.38	1.72	1140.	7.28	15.40
8	42.80	38.44	1.52	953.	4.05	9.27
9	43.90	41.76	1.49	948.	4.23	9.90
10	37.27	35.67	1.68	1052.	4.63	10.26
11	20.42	19.41	1.94	1219.	4.28	7.70
12	24.46	23.30	1.23	854.	3.36	6.44
1984	358.05	339.41	1.57	1004.	4.99	10.79

LOCATION : MG10 PS NO 3 YEAR : 1984 CODE : 11
 Q = 7.420 - (0.750) * H ; GCAP = 5.365 HAV = 2.740

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	10.33	11.75	-	-	-	-
2	9.88	6.09	11.34	6749.	22.60	61.87
3	23.81	24.72	2.26	1346.	7.42	16.10
4	23.03	23.80	1.93	1212.	5.63	12.69
5	18.47	19.11	1.99	1210.	8.16	15.61
6	27.44	29.28	2.70	1661.	10.32	23.00
7	38.99	43.72	2.97	1770.	11.34	24.93
8	33.45	34.66	2.62	1611.	9.85	21.82
9	30.67	30.33	2.35	1447.	6.79	16.78
10	26.58	27.85	1.94	1215.	5.66	12.89
11	15.75	16.80	2.13	1350.	5.56	9.78
12	17.32	18.16	2.32	1611.	6.77	13.82
1984	271.72	285.27	-	-	-	-

LOCATION : MG11 GHARBIA BRIDGE NO 7 YEAR : 1984 CODE : 22
 Q = 38.310* (3.740 - HM) ** 2.610 R2 = [0.890]

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	-	-	-	-	-
2	-	73.68	2.91	1803.	8.05	19.54
3	-	-	-	-	-	-
4	-	69.90	1.83	1151.	5.26	11.32
5	-	82.40	1.47	959.	4.51	9.02
6	-	-	-	-	-	-
7	-	145.34	-	-	-	-
8	-	145.53	1.67	1043.	5.26	12.22
9	-	105.28	1.73	1114.	4.81	11.72
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	127.94	1.70	1209.	5.17	10.93
1984	-	-	-	-	-	-

LOCATION : M012 HAFIR SHEHAB EDDIN PS YEAR : 1984 CODE : 11
 Q = 10.120 - (1.180) * H ; GCAP = 5.648 HAV = 3.790

MONTH!	DISCHARGE 10**6 M3 !		EC !	TDS !	SAR !	ADJ SAR !
	DESIGN !	DRI !	MMHO/CM !	PPM !		
1	26.80	30.07	6.93	4086.	15.38	39.06
2	11.85	13.14	24.60	15031.	29.45	84.96
3	25.92	28.08	7.98	4687.	16.14	38.33
4	26.99	29.18	7.94	4954.	17.37	42.66
5	24.85	26.77	7.39	4730.	18.50	44.30
6	27.12	32.52	5.08	2955.	13.50	33.68
7	39.04	50.25	5.05	3046.	13.91	33.61
8	38.17	44.41	6.62	4241.	18.24	45.28
9	36.45	40.21	6.79	4124.	15.94	41.75
10	32.18	35.93	5.24	3229.	12.31	29.10
11	26.04	27.93	5.72	3834.	13.60	26.07
12	26.24	29.23	8.82	6000.	19.52	44.17
1984	341.65	387.72	7.14	4449.	16.44	40.73

LOCATION : M013 GHARBIA OUTFALL YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 !		EC !	TDS !	SAR !	ADJ SAR !
	DESIGN !	DRI !	MMHO/CM !	PPM !		
1	-	-	2.59	1350.	7.99	18.20
2	-	-	9.15	5464.	22.52	56.64
3	-	-	3.55	2050.	9.68	21.95
4	-	-	2.14	1264.	5.68	12.27
5	-	-	2.14	1219.	6.91	13.71
6	-	-	2.11	1243.	6.65	14.27
7	-	-	2.76	1716.	7.61	18.13
8	-	-	4.02	2468.	11.32	27.60
9	-	-	3.03	1797.	7.98	18.75
10	-	-	2.09	1322.	5.76	11.92
11	-	-	1.64	1061.	4.50	7.61
12	-	-	2.69	1888.	8.34	17.27
1984	-	-	3.14	1907.	9.21	20.59

LOCATION : M101 EDFINA BARRAGE YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 !		EC !	TDS !	SAR !	ADJ SAR !
	DESIGN !	DRI !	MMHO/CM !	PPM !		
1	-	-	0.44	308.	1.29	2.34
2	-	-	0.46	325.	0.90	1.71
3	-	-	0.55	372.	0.73	1.45
4	-	-	0.54	363.	1.11	2.09
5	-	-	0.69	457.	1.65	3.19
6	-	-	0.39	270.	0.94	1.64
7	-	-	0.46	338.	1.17	2.26
8	-	-	0.48	359.	1.50	2.93
9	-	-	-	-	-	-
10	-	-	0.59	421.	1.08	2.26
11	-	-	-	-	-	-
12	-	-	0.52	365.	0.87	1.55
1984	-	-	-	-	-	-

LOCATION : MIO4 BALAMDUN PS

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI	EC MMHO/CM	TDS PPM	BAR	ADJ BAR
1	-	-	0.57	393.	1.38	2.72
2	-	-	0.51	343.	1.06	2.07
3	-	-	0.49	358.	1.02	2.04
4	-	-	0.53	367.	0.74	1.52
5	-	-	0.47	310.	0.87	1.61
6	-	-	0.48	316.	1.49	2.54
7	-	-	0.48	337.	1.16	2.10
8	-	-	0.47	328.	0.71	1.41
9	-	-	0.55	375.	1.30	2.61
10	-	-	0.52	339.	0.93	1.70
11	-	-	0.55	339.	0.85	1.17
12	-	-	0.60	429.	1.73	2.98
1984	-	-	0.52	353.	1.10	2.07

LOCATION : MIO7 BAHR BASANDELA

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI	EC MMHO/CM	TDS PPM	BAR	ADJ BAR
1	-	-	0.40	283.	1.00	1.81
2	-	-	0.58	403.	0.95	1.95
3	-	-	-	-	-	-
4	-	-	0.46	311.	1.10	1.96
5	-	-	0.45	298.	1.26	2.00
6	-	-	0.40	251.	0.95	1.57
7	-	-	0.41	271.	0.87	1.51
8	-	-	0.40	273.	0.90	1.55
9	-	-	0.43	283.	0.77	1.34
10	-	-	0.46	315.	0.80	1.43
11	-	-	0.47	296.	0.79	1.04
12	-	-	0.48	333.	0.86	1.46
1984	-	-	-	-	-	-

LOCATION : MIO8 BAHR TIRA BEF MIX

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI	EC MMHO/CM	TDS PPM	BAR	ADJ BAR
1	-	-	0.55	380.	1.31	2.58
2	-	-	0.47	336.	1.31	2.43
3	-	-	0.41	292.	1.24	2.15
4	-	-	0.47	315.	0.76	1.42
5	-	-	0.46	286.	1.02	1.76
6	-	-	0.46	287.	1.27	2.11
7	-	-	0.38	267.	0.91	1.57
8	-	-	0.37	275.	0.95	1.70
9	-	-	0.44	301.	1.05	1.89
10	-	-	0.49	331.	0.89	1.69
11	-	-	0.49	305.	0.83	1.15
12	-	-	0.49	337.	1.02	1.67
1984	-	-	0.46	309.	1.04	1.86

LOCATION : MIO9 BAHR TIRA AFT MIX YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 !		EC !	TDS !	SAR !	ADJ SAR !
	DESIGN !	DRI !	MMHO/CM !	PPM !		
1	-	-	1.05	688.	3.18	6.84
2	-	-	2.29	1415.	4.91	12.39
3	-	-	1.13	707.	3.73	7.74
4	-	-	0.77	490.	2.13	4.03
5	-	-	1.34	866.	3.86	7.96
6	-	-	-	-	-	-
7	-	-	1.45	972.	6.21	13.09
8	-	-	1.20	817.	4.37	9.78
9	-	-	1.39	926.	4.18	9.88
10	-	-	0.97	635.	2.73	5.74
11	-	-	1.24	808.	3.51	5.70
12	-	-	1.16	806.	3.61	6.68
1984	-	-	-	-	-	-

LOCATION : MNO1 UPPER PS NO B YEAR : 1984 CODE : 11
 $Q = 8.690 - (0.590) * H$; GCAP = 8.065 HAV = 1.060

MONTH!	DISCHARGE 10**6 M3 !		EC !	TDS !	SAR !	ADJ SAR !
	DESIGN !	DRI !	MMHO/CM !	PPM !		
1	22.71	23.15	1.02	666.	3.59	7.14
2	6.55	6.66	3.03	2085.	7.29	18.98
3	21.11	21.31	1.51	965.	5.36	11.03
4	21.43	21.60	1.70	1036.	5.13	11.21
5	22.01	22.16	1.45	938.	4.80	9.95
6	21.17	21.29	1.80	1126.	4.60	10.99
7	27.82	27.86	2.05	1227.	4.16	10.44
8	32.51	32.21	-	-	-	-
9	34.42	33.38	1.73	1078.	4.83	11.44
10	17.25	17.29	2.41	1511.	5.70	13.31
11	22.68	22.50	1.83	1178.	4.72	8.24
12	25.75	25.52	1.58	1128.	4.98	10.27
1984	275.41	274.93	-	-	-	-

LOCATION : MNO2 MANDURA PS YEAR : 1984 CODE : 11
 $Q = 10.690 - (1.240) * H$; GCAP = 7.280 HAV = 2.750

MONTH!	DISCHARGE 10**6 M3 !		EC !	TDS !	SAR !	ADJ SAR !
	DESIGN !	DRI !	MMHO/CM !	PPM !		
1	12.91	12.42	1.87	1118.	7.65	16.06
2	3.46	3.39	10.50	6535.	18.27	52.44
3	21.87	21.41	1.71	1022.	7.22	13.70
4	16.85	16.55	2.20	1381.	7.30	15.87
5	20.11	19.62	1.49	925.	5.70	10.63
6	19.12	18.93	2.00	1227.	6.12	13.56
7	23.54	22.70	2.24	1334.	6.67	15.51
8	21.49	21.04	2.42	1489.	7.66	18.27
9	25.81	24.54	1.86	1169.	5.18	12.30
10	17.25	16.38	2.15	1329.	5.48	11.94
11	16.47	16.07	-	-	-	-
12	15.28	14.66	2.36	1652.	6.53	13.45
1984	214.16	207.71	-	-	-	-

LOCATION : MN03 NASHART OUTFALL

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	-	1.40	959.	5.17	11.86
2	-	-	2.45	1570.	5.10	12.86
3	-	-	1.60	999.	4.93	10.63
4	-	-	1.72	1076.	4.45	9.82
5	-	-	1.52	957.	5.33	10.59
6	-	-	1.64	1046.	6.77	13.81
7	-	-	-	-	-	-
8	-	-	1.66	1115.	5.40	12.51
9	-	-	1.64	1114.	4.50	11.20
10	-	-	1.39	945.	4.81	10.76
11	-	-	1.25	798.	4.52	7.14
12	-	-	1.56	1071.	5.67	10.38
1984	-	-	-	-	-	-

LOCATION : MN04 ZEINI PS

YEAR : 1984

CODE : 11

1 UNITS: Q = 5.340 - 0.980 * H; GCAP = 2.175; HAV = 3.23

2 UNITS: Q = 8.310 - 1.200 * H; GCAP = 4.434; HAV = 3.23

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	11.61	9.18	1.56	914.	4.10	8.81
2	8.62	4.76	3.58	2115.	9.06	21.86
3	12.29	7.70	3.24	1922.	9.29	21.80
4	11.88	7.86	2.27	1428.	6.58	15.24
5	10.75	7.01	2.78	1696.	9.28	19.37
6	12.33	7.38	3.60	2178.	11.92	27.03
7	14.67	11.58	-	-	-	-
8	18.65	13.64	2.45	1510.	6.74	16.68
9	21.89	15.89	2.30	1431.	7.41	17.67
10	16.94	14.36	2.99	1824.	9.21	20.17
11	12.83	9.21	4.19	2638.	11.12	20.57
12	10.04	8.50	3.29	2276.	10.17	20.90
1984	162.50	117.07	-	-	-	-

LOCATION : MT01 TIRA PS

YEAR : 1984

CODE : 11

Q = 8.200 - (0.000) * H ; GCAP = 8.200 HAV = 3.580

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	24.15	24.68	5.30	3055.	10.95	27.22
2	7.82	7.91	15.01	9353.	21.42	61.53
3	26.67	27.13	5.55	3328.	18.04	40.83
4	25.94	26.30	5.88	3649.	13.48	31.98
5	24.19	24.80	4.79	2922.	12.92	28.77
6	30.75	31.53	4.86	2801.	13.72	33.07
7	50.16	48.50	5.36	3134.	13.83	34.76
8	48.95	50.12	5.14	2989.	13.51	34.46
9	48.84	50.01	4.64	2822.	11.67	30.11
10	34.80	35.69	6.50	3993.	14.48	35.24
11	25.89	26.54	8.08	5243.	16.84	33.18
12	23.74	24.38	8.27	6007.	18.78	43.50
1984	371.90	377.59	5.86	3622.	14.29	35.34

3.1.3. Western Delta

LOCATION : W801 BARSIG PS YEAR : 1984 CODE : 11
 G = 4.340 - (0.640) * H ; GCAP = 2.740 HAV = 2.500

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	26.40	13.92	1.85	1158.	5.42	12.16
2	18.08	9.72	2.63	1633.	6.17	14.91
3	34.67	18.33	2.99	1748.	9.74	20.25
4	38.13	20.40	3.13	1978.	8.89	19.75
5	44.33	24.34	2.94	1773.	10.18	22.04
6	44.37	25.73	3.55	2156.	12.72	27.57
7	50.40	29.49	3.90	2435.	13.30	30.31
8	51.96	29.73	2.79	1733.	8.68	20.30
9	48.08	28.25	3.07	1973.	9.58	22.82
10	44.30	23.88	2.33	1508.	6.49	16.19
11	32.09	16.77	2.05	1429.	6.32	13.79
12	28.85	14.93	5.01	3532.	12.93	32.12
1984	461.66	255.50	3.05	1936.	9.61	22.10

LOCATION : W801 ETAY BARUD PS YEAR : 1984 CODE : 11
 G = 2.440 - (0.000) * H ; GCAP = 2.440 HAV = 3.900

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	5.83	5.48	0.94	643.	1.74	3.75
2	2.15	2.01	1.21	827.	3.08	6.86
3	5.84	5.45	0.85	549.	2.16	4.00
4	6.46	6.12	1.02	660.	2.69	5.22
5	6.59	6.20	0.79	505.	2.42	4.57
6	7.07	6.90	0.92	576.	2.23	4.50
7	7.39	7.38	0.97	635.	1.32	2.94
8	8.14	7.21	0.93	634.	2.44	5.37
9	9.73	9.45	0.99	708.	2.85	6.65
10	9.53	9.11	1.14	803.	2.70	6.54
11	6.54	6.16	1.52	1075.	4.43	9.51
12	6.96	6.62	1.18	862.	3.43	7.63
1984	82.23	78.10	1.03	703.	2.60	5.70

LOCATION : W802 SHUBRAKHIT PS YEAR : 1984 CODE : 11
 G = 6.550 - (0.860) * H ; GCAP = 5.518 HAV = 1.200

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	22.16	19.26	1.46	939.	4.85	10.41
2	10.94	9.64	3.43	2237.	9.87	22.65
3	25.94	22.93	0.89	573.	2.20	4.37
4	23.48	20.71	1.06	711.	2.46	5.23
5	29.84	25.86	0.81	514.	2.96	5.53
6	28.62	24.89	1.27	835.	7.05	12.93
7	34.16	30.33	1.52	1035.	7.66	15.39
8	37.39	32.92	1.10	708.	3.21	6.82
9	38.94	34.63	1.10	744.	2.89	6.74
10	36.68	32.44	0.96	678.	2.16	5.20
11	24.84	21.57	1.13	818.	3.08	6.60
12	26.00	22.57	1.02	733.	2.90	6.28
1984	338.99	297.75	1.19	800.	3.92	8.42

LOCATION : WE03 ZARGUN PS YEAR : 1984 CODE : 11
 Q = 9.210 - (2.300) * H ; GCAP = 5.185 HAV = 1.750

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	12.89	13.56	2.83	1786.	8.12	19.06
2	6.89	7.62	1.49	964.	4.27	9.63
3	12.09	12.39	1.05	661.	3.11	6.11
4	14.83	15.67	1.05	668.	3.57	6.55
5	15.56	16.93	1.06	680.	3.89	7.52
6	19.29	20.81	-	-	-	-
7	23.69	23.93	1.06	654.	3.60	7.35
8	24.41	24.53	1.08	691.	2.80	6.48
9	25.90	25.62	1.10	731.	3.39	7.95
10	20.65	21.41	1.37	913.	3.19	7.93
11	15.88	16.76	2.07	1435.	5.86	12.53
12	13.86	14.95	1.27	883.	3.93	8.32
1984	205.94	214.17	-	-	-	-

LOCATION : WE04 EDKO IRR. PS YEAR : 1984 CODE : 11
 Q = 6.380 - (0.000) * H ; GCAP = 6.380 HAV = 2.400

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	18.50	17.59	1.03	668.	2.81	5.98
2	8.18	8.06	1.75	1116.	4.64	10.83
3	27.16	27.42	0.92	566.	2.55	4.65
4	30.20	30.29	1.00	634.	2.33	4.35
5	30.40	30.85	0.98	614.	2.63	5.15
6	29.51	30.75	-	-	-	-
7	32.09	33.46	1.11	673.	4.44	8.52
8	33.92	35.21	1.10	716.	3.13	6.93
9	30.89	30.78	1.20	789.	3.73	8.44
10	32.40	32.09	1.04	681.	2.46	5.63
11	29.98	30.09	0.85	578.	2.20	4.18
12	29.67	28.53	0.99	702.	2.93	6.19
1984	332.90	335.13	-	-	-	-

LOCATION : WE05 DILINGAT PS YEAR : 1984 CODE : 11
 Q = 8.170 - (1.050) * H ; GCAP = 5.020 HAV = 3.000

MONTH!	DISCHARGE DESIGN !	10**6 M3 DRI !	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	19.11	17.42	0.90	641.	2.50	5.57
2	12.60	11.99	0.94	654.	2.91	6.02
3	15.75	14.35	0.83	582.	2.33	4.76
4	15.26	14.01	1.02	715.	2.93	5.91
5	15.41	13.47	0.93	605.	2.95	5.84
6	14.27	12.88	0.90	571.	3.62	6.91
7	15.86	12.96	1.07	724.	3.29	7.15
8	18.19	15.65	0.91	631.	1.79	4.17
9	22.05	19.43	0.82	580.	2.00	4.54
10	21.41	20.05	0.84	604.	1.58	3.73
11	19.27	17.93	1.00	728.	2.22	4.59
12	19.36	18.30	1.00	751.	1.99	4.53
1984	208.54	188.44	0.92	649.	2.38	5.20

LOCATION : WE06 KHANDAK EL GHARBI PS YEAR : 1984 CODE : 11
 Q = 2.350 - (0.000) * H ; GCAP = 2.350 HAV = 3.400

MONTH!	DISCHARGE 10**6 M3 DESIGN !	EC DRI !	MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	6.96	6.04	0.94	666.	2.60	5.83
2	3.01	2.60	1.17	806.	3.42	7.89
3	6.13	5.37	0.92	613.	3.69	7.07
4	7.23	6.17	1.05	697.	2.24	4.65
5	8.28	7.33	0.83	577.	1.30	2.92
6	10.68	9.51	1.11	733.	2.86	6.23
7	12.67	11.44	1.21	790.	5.02	10.22
8	11.84	10.63	1.03	742.	4.16	9.11
9	11.41	10.23	1.05	760.	2.99	7.02
10	12.51	11.11	0.87	598.	1.27	3.02
11	9.23	8.10	1.02	733.	2.46	5.20
12	8.66	7.70	1.45	1031.	4.90	10.90
1984	108.61	96.23	1.05	729.	3.03	6.71

LOCATION : WE07 KHAIRY PS YEAR : 1984 CODE : 11
 Q = 7.140 - (1.390) * H ; GCAP = 4.638 HAV = 1.800

MONTH!	DISCHARGE 10**6 M3 DESIGN !	EC DRI !	MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	16.72	13.69	1.05	715.	2.91	6.47
2	9.95	8.45	1.31	881.	3.57	8.10
3	15.42	12.56	1.12	725.	3.38	7.12
4	16.18	13.06	1.16	758.	3.55	7.00
5	15.79	12.75	1.36	875.	4.87	10.23
6	19.38	15.82	-	-	-	-
7	25.28	20.48	1.25	826.	5.31	11.07
8	25.03	20.32	1.04	711.	3.46	7.88
9	25.45	20.55	1.11	762.	3.36	8.08
10	22.42	18.39	1.57	1046.	4.06	10.13
11	17.76	14.40	1.70	1173.	4.92	10.45
12	17.54	14.56	1.17	857.	3.34	7.49
1984	226.92	185.02	-	-	-	-

LOCATION : WE08 HALG EL GAMAL PS YEAR : 1984 CODE : 11
 Q = 4.830 - (0.700) * H ; GCAP = 3.080 HAV = 2.500

MONTH!	DISCHARGE 10**6 M3 DESIGN !	EC DRI !	MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	27.09	16.00	1.08	706.	3.44	7.58
2	21.24	12.88	1.35	834.	4.73	10.08
3	35.78	21.57	1.62	991.	4.67	9.67
4	40.68	23.46	2.06	1284.	4.71	9.92
5	43.11	26.98	1.61	1024.	5.24	11.01
6	43.58	29.47	1.54	1038.	6.26	13.04
7	47.25	32.41	1.79	1205.	7.15	15.13
8	48.49	32.04	1.92	1208.	6.47	15.06
9	45.65	30.87	1.75	1113.	5.70	13.79
10	46.73	28.06	2.72	1669.	7.37	19.03
11	37.24	22.37	-	-	-	-
12	29.79	17.39	2.96	1897.	8.14	19.85
1984	466.63	293.51	-	-	-	-

LOCATION : WE09 HALG EL GAMAL BRIDGE YEAR : 1984 CODE : 21
 Q = 233.300 - 77.250* HM ; RZ = [0.760]

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	-	73.97	1.27	808.	4.43	9.75
2	-	39.02	2.07	1278.	7.46	16.61
3	-	45.62	1.23	782.	3.93	8.19
4	-	57.76	1.02	648.	2.97	5.45
5	-	35.44	1.17	735.	4.54	9.01
6	-	40.31	1.81	1150.	7.42	16.09
7	-	78.24	1.40	867.	5.86	11.83
8	-	66.37	1.35	858.	4.25	9.53
9	-	66.07	1.37	923.	4.24	10.21
10	-	-	-	-	-	-
11	-	40.11	1.22	867.	3.56	7.30
12	-	45.50	1.26	914.	3.03	7.05
1984	-	-	-	-	-	-

LOCATION : WE10 EDKO PS YEAR : 1984 CODE : 11
 Q = 3.920 - (0.220) * H ; GCAP = 3.216 HAV = 3.200

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	9.42	8.60	3.83	2258.	8.49	21.19
2	7.48	6.89	4.41	2621.	9.42	23.79
3	13.27	12.26	3.53	2070.	11.86	25.41
4	12.21	11.11	4.51	2765.	13.03	30.65
5	17.64	16.49	3.88	2333.	13.61	30.54
6	12.46	12.20	-	-	-	-
7	18.31	17.73	3.45	2076.	13.02	29.66
8	25.23	23.38	2.94	1764.	9.50	22.82
9	22.45	21.47	2.63	1631.	8.40	21.24
10	18.42	16.63	3.45	2181.	9.16	24.37
11	15.05	13.63	4.03	2811.	11.14	25.38
12	10.55	9.75	4.13	2922.	10.90	26.61
1984	182.49	170.13	-	-	-	-

LOCATION : WE11 BOSSEILY PS YEAR : 1984 CODE : 11
 Q = 5.170 - (0.570) * H ; GCAP = 3.346 HAV = 3.200

MONTH!	DISCHARGE 10**6 M3 DESIGN !	DRI	EC MMHO/CM !	TDS PPM !	SAR !	ADJ SAR !
1	13.42	12.25	2.15	1266.	6.71	15.15
2	14.55	13.32	1.72	1031.	7.08	14.23
3	25.88	23.56	2.05	1173.	6.10	12.60
4	24.90	24.71	2.61	1589.	7.29	15.99
5	33.89	34.59	1.91	1170.	7.10	14.73
6	38.35	40.18	1.97	1258.	9.91	18.31
7	42.02	42.32	3.01	1947.	13.74	28.23
8	44.55	43.07	2.97	1743.	9.00	21.51
9	43.50	43.19	2.44	1471.	7.01	17.46
10	37.77	35.29	2.21	1379.	6.25	15.69
11	28.01	25.28	1.67	1171.	4.54	10.13
12	20.16	17.91	2.60	1824.	7.29	17.05
1984	367.00	355.68	2.32	1459.	7.91	17.83

LOCATION : WI13 MAHMUDEYA CANAL BEF MIX YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	0.44	311.	1.66	2.86
2	-	-	-	-	-
3	-	0.45	317.	1.07	2.00
4	-	-	-	-	-
5	-	0.69	475.	2.02	3.88
6	-	0.69	443.	2.58	4.66
7	-	0.55	335.	1.56	2.67
8	-	0.50	318.	1.04	1.94
9	-	0.54	354.	1.16	2.39
10	-	0.54	361.	0.60	1.25
11	-	0.54	355.	0.76	1.30
12	-	0.62	435.	2.04	3.86
1984	-	-	-	-	-

LOCATION : WI14 MAHMUDEYA CANAL AFT MIX YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	0.70	476.	1.69	3.42
2	-	-	-	-	-
3	-	0.59	390.	0.88	1.69
4	-	-	-	-	-
5	-	0.72	467.	1.41	2.78
6	-	0.77	477.	2.83	5.20
7	-	0.76	480.	2.65	5.03
8	-	1.00	700.	3.35	7.40
9	-	0.96	650.	2.95	6.42
10	-	0.63	419.	0.97	2.03
11	-	0.72	496.	1.75	3.04
12	-	0.87	596.	1.82	3.65
1984	-	-	-	-	-

LOCATION : WI15 KAFR EL DOWAR BRIDGE YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	0.55	374.	1.45	2.74
2	-	-	-	-	-
3	-	0.52	354.	0.79	1.57
4	-	-	-	-	-
5	-	-	-	-	-
6	-	0.75	485.	3.12	5.68
7	-	0.99	625.	4.22	7.90
8	-	-	-	-	-
9	-	0.63	428.	1.59	3.25
10	-	0.91	646.	1.51	3.66
11	-	0.72	495.	1.48	2.90
12	-	0.64	451.	1.59	3.12
1984	-	-	-	-	-

LOCATION : WT01 TABIA PS

YEAR : 1984

CODE : 13

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	32.75 -	1.79	1171.	5.41	12.66
2	36.08 -	1.73	1136.	5.25	12.22
3	51.55 -	1.74	1096.	5.61	12.22
4	54.44 -	2.12	1276.	6.59	14.19
5	56.63 -	1.98	1225.	7.42	15.72
6	47.80 -	3.81	2588.	18.05	37.27
7	53.06 -	4.64	3216.	22.59	48.16
8	55.45 -	2.76	1715.	9.25	22.35
9	56.01 -	1.94	1238.	6.79	16.26
10	57.86 -	1.79	1145.	5.50	13.33
11	49.28 -	1.63	1117.	4.98	10.52
12	45.25 -	2.48	1751.	7.51	17.63
1984	596.16 -	2.35	1569.	8.81	19.92

LOCATION : WU01 SHEREISHRA BRIDGE

YEAR : 1984

CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	- -	2.35	1517.	5.78	14.03
2	- -	2.28	1473.	7.55	16.94
3	- -	2.45	1521.	6.89	14.85
4	- -	1.94	1257.	5.92	12.49
5	- -	1.40	929.	6.38	12.55
6	- -	1.40	899.	7.26	13.45
7	- -	1.94	1217.	8.60	17.40
8	- -	2.06	1339.	7.95	17.69
9	- -	2.03	1386.	6.52	16.38
10	- -	1.95	1335.	5.57	14.12
11	- -	2.77	1979.	8.54	18.77
12	- -	2.23	1628.	6.80	15.92
1984	- -	2.04	1373.	6.86	15.53

LOCATION : WU02 SHEREISHRA PS

YEAR : 1984

CODE : 11

G = 7.900 - (0.000) * H ; GCAP = 7.900 HAV = 1.550

MONTH!	DISCHARGE 10**6 M3 ! DESIGN ! DRI !	EC ! MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	45.18 45.30	2.69	1704.	9.90	21.85
2	24.33 24.06	4.25	2627.	14.62	33.85
3	41.75 41.35	2.42	1578.	8.40	17.24
4	39.40 38.93	2.95	1991.	9.01	20.31
5	39.89 39.47	2.86	1915.	10.72	24.67
6	40.09 39.62	4.59	3141.	21.00	45.14
7	46.97 46.41	5.01	3480.	23.08	47.25
8	55.96 56.28	2.73	1778.	10.43	22.90
9	59.27 58.56	2.40	1626.	8.21	20.44
10	59.95 59.24	3.56	2290.	9.64	23.04
11	47.37 46.41	3.13	2176.	8.95	20.25
12	47.94 47.38	2.66	1892.	8.08	18.03
1984	548.10 543.03	3.20	2148.	11.30	25.99

LOCATION : WU03 TRUGA PS YEAR : 1984 CODE : 11
 Q = 10.830 - (1.370) * H ; GCAP = 7.405 HAV = 2.500

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHQ/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	47.84	47.81	3.36	2168.	8.75	21.42
2	24.80	25.97	4.22	2851.	10.77	27.61
3	51.97	57.44	2.77	1799.	8.41	17.35
4	49.59	51.71	3.18	2080.	8.79	18.31
5	47.63	47.53	3.55	2302.	11.33	25.44
6	52.28	59.34	2.99	1946.	10.68	22.49
7	52.23	55.29	3.57	2380.	11.31	26.51
8	60.18	67.75	3.48	2369.	11.63	28.30
9	52.61	66.61	3.47	2411.	11.47	28.62
10	52.86	63.59	3.20	2201.	8.26	21.54
11	51.25	51.34	3.23	2273.	9.22	20.72
12	49.94	44.94	3.80	2715.	10.49	25.10
1984	593.18	639.30	3.35	2260.	10.04	23.78

LOCATION : WU04 DISHUDI BRIDGE YEAR : 1984 CODE : 24

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHQ/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	-	-	2.99	1943.	8.05	19.29
2	-	-	2.88	1778.	7.92	18.02
3	-	-	2.98	1926.	9.91	21.71
4	-	-	3.02	1966.	9.76	20.64
5	-	-	3.03	1943.	11.42	24.12
6	-	-	4.41	3002.	17.32	37.45
7	-	-	4.74	3337.	22.90	47.99
8	-	-	2.87	1962.	10.44	24.03
9	-	-	2.71	1878.	8.31	20.65
10	-	-	2.67	1839.	7.26	18.75
11	-	-	3.29	2349.	9.70	21.58
12	-	-	3.41	2403.	12.35	28.43
1984	-	-	3.24	2195.	11.03	25.26

LOCATION : WU05 DUSHUDI P5 YEAR : 1984 CODE : 11
 Q = 10.320 - (2.010) * H ; GCAP = 5.737 HAV = 2.280

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	DRI !	EC ! MMHQ/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	18.50	18.83	5.01	3074.	13.83	33.90
2	16.21	17.10	4.96	3101.	14.95	37.36
3	22.65	23.79	4.68	2894.	13.25	30.92
4	22.28	22.89	5.70	3599.	11.72	26.76
5	21.94	22.32	4.18	2530.	13.29	28.82
6	25.13	25.89	3.88	2370.	14.66	30.68
7	28.38	30.01	3.91	2506.	13.02	30.07
8	31.51	35.32	3.33	2161.	9.22	23.04
9	30.83	33.09	4.95	3112.	12.97	34.09
10	29.45	33.06	5.63	3555.	12.14	32.75
11	26.45	27.06	4.81	3399.	12.17	28.45
12	23.10	23.23	6.19	4289.	13.93	35.67
1984	296.43	312.61	4.67	3019.	12.56	30.88

LOCATION : WU06 HARES PS YEAR : 1984 CODE : 11
 G = 11.440 - (1.730) * H ; GCAP = 6.250 HAV = 3.000

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	EC ! DRI !	MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	59.14	45.86	11.82	7319.	22.46	56.69
2	28.85	22.79	17.27	10815.	31.47	83.35
3	58.36	44.79	10.50	6404.	28.32	61.54
4	59.08	45.55	10.89	7240.	20.01	47.26
5	58.57	43.47	9.94	6351.	27.44	61.37
6	52.67	39.81	11.14	7175.	29.95	68.76
7	52.59	39.81	13.59	8741.	32.64	80.17
8	60.98	45.68	11.42	6736.	20.94	57.45
9	60.84	47.83	10.54	6761.	20.39	56.60
10	63.82	54.00	8.91	5876.	16.48	45.18
11	61.87	48.62	9.71	7132.	20.06	47.63
12	63.79	49.29	9.44	6782.	19.30	48.31
1984	680.56	527.49	10.80	7086.	22.99	58.16

LOCATION : WU07 ABIES PS YEAR : 1984 CODE : 11
 5 UNITS: G = 0.310 - 0.000 * H; GCAP = 0.310; HAV = 42.50

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	EC ! DRI !	MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	3.10	2.86	7.56	4458.	14.47	38.74
2	3.08	2.85	6.49	3971.	14.57	36.45
3	3.86	3.57	5.17	3207.	14.56	33.00
4	4.20	3.94	5.16	3346.	11.04	26.78
5	8.35	8.12	5.53	3858.	21.22	44.18
6	7.67	7.41	-	-	-	-
7	8.76	8.43	11.31	8585.	57.19	116.08
8	8.09	7.75	4.90	3282.	14.09	33.30
9	7.36	6.95	4.68	3167.	10.22	27.05
10	7.74	7.42	3.65	2432.	7.11	19.18
11	7.67	7.35	4.03	2929.	8.85	20.44
12	4.57	4.34	7.49	5565.	13.86	37.00
1984	74.45	70.99	-	-	-	-

LOCATION : WU08 GALAA PS YEAR : 1984 CODE : 13

MONTH!	DISCHARGE 10**6 M3 ! DESIGN !	EC ! DRI !	MMHO/CM !	TDS ! PPM !	SAR !	ADJ SAR !
1	15.73	-	3.14	1872.	8.38	20.03
2	14.44	-	2.71	1627.	8.99	20.63
3	18.56	-	2.41	1433.	6.26	14.36
4	19.73	-	-	-	-	-
5	21.42	-	2.42	1475.	9.79	20.21
6	21.00	-	-	-	-	-
7	22.98	-	2.03	1316.	9.26	17.74
8	22.01	-	2.95	1919.	8.74	21.11
9	22.91	-	2.52	1631.	7.63	19.19
10	23.17	-	2.61	1715.	7.24	18.63
11	20.28	-	2.98	2079.	8.59	19.40
12	17.02	-	4.02	2821.	10.57	26.48
1984	239.25	-	-	-	-	-

LOCATION : WU09 MAX PS YEAR : 1984 CODE : 11
 6 UNITS: Q = 15.320 - 1.600 * H; GCAP = 10.120; HAV = 3.25
 6 UNITS: Q = 16.800 - 1.600 * H; GCAP = 11.600; HAV = 3.25

MONTH:	DISCHARGE DESIGN	10**6 M3 DRI	EC MMHO/CM	TDS PPM	SAR	ADJ SAR
1	275.53	218.49	8.26	5083.	14.73	39.12
2	143.82	114.02	11.67	7299.	20.21	56.41
3	207.28	178.11	8.07	4990.	19.47	46.20
4	219.15	166.24	9.68	6170.	21.15	51.29
5	226.74	182.39	8.19	5314.	23.05	54.14
6	214.58	170.33	7.76	4999.	25.59	53.16
7	231.06	183.21	8.38	5292.	23.27	54.80
8	264.38	209.18	7.44	4722.	19.40	48.84
9	271.63	213.41	7.78	5049.	18.96	51.00
10	293.52	226.23	7.32	4799.	15.69	42.80
11	263.79	211.19	6.10	4453.	14.52	33.92
12	308.00	243.96	8.25	5817.	17.92	45.50
1984	2919.48	2316.78	8.00	5248.	18.83	47.56

3.2.2. Middle Delta

LOCATION : M101 UPPER PS NO 1 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 PUMP STATION : BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+Q \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 Q₀ = 6.490 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 S = -0.330 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP = 5.754 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.230 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RBC	CA	MO	NA	K	CO3	HCO3	SD4	CL
1	6.36	1.14	791	7.71	5.22	10.87	0.21	2.49	1.47	7.34	0.12	0.00	4.17	2.78	4.56
2	1.48	3.55	2338	8.13	12.30	32.34	0.00	4.47	5.20	27.05	0.50	3.17	5.57	8.45	19.88
3	10.51	1.01	611	8.19	4.32	8.64	0.00	1.92	1.79	8.89	0.18	1.51	2.03	1.95	4.65
4	9.41	1.07	627	7.67	4.49	7.95	0.00	1.73	1.92	6.06	0.17	0.03	2.23	1.34	6.25
5	5.27	0.94	889	8.27	2.86	5.49	0.00	1.98	2.55	4.31	0.27	0.12	2.32	2.37	4.24
6	7.57	1.24	882	8.14	5.65	12.42	0.77	2.27	2.04	8.30	0.16	0.00	5.08	2.66	5.02
7	12.35	0.89	618	8.15	4.18	8.68	1.35	1.57	1.71	5.36	0.15	0.00	4.63	0.51	3.65
8	6.41	0.68	486	8.31	3.10	6.13	1.15	1.15	1.72	3.71	0.22	0.04	3.98	0.41	2.37
9	3.74	1.04	748	8.07	5.18	11.31	2.10	0.87	2.73	6.95	0.29	0.62	5.07	1.29	3.86
10	2.96	0.53	368	7.98	1.06	1.97	0.00	1.02	2.08	1.32	0.75	0.05	2.57	1.03	1.54
11	2.09	1.11	758	8.73	3.62	6.33	0.00	2.75	2.35	9.78	0.39	0.06	1.61	6.92	2.67
12	3.90	0.98	686	8.40	4.36	7.41	0.00	2.06	1.58	5.89	0.34	0.06	2.08	5.93	1.80
1984	72.04	1.04	687	8.02	4.48	9.13	0.00	1.85	1.98	6.19	0.23	0.34	3.45	2.03	4.42

LOCATION : M102 BRIDGE DRAIN NO 1 YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RBC	CA	MO	NA	K	CO3	HCO3	SD4	CL
1	-	1.31	844	8.09	8.66	11.90	0.00	1.97	2.92	8.48	0.13	0.19	3.79	3.28	5.74
2	-	2.13	1377	7.78	14.17	25.89	0.41	1.20	1.85	17.48	0.21	0.00	3.45	7.47	9.65
3	-	1.26	849	7.60	7.64	14.02	0.34	1.34	1.60	9.30	0.22	0.00	3.30	4.23	4.86
4	-	1.17	784	7.27	4.78	9.94	0.00	2.11	2.28	7.08	0.22	0.07	3.71	2.92	4.97
5	-	1.00	663	8.11	8.19	8.71	0.00	1.98	1.52	6.45	0.25	0.15	2.04	4.67	2.88
6	-	1.20	761	8.24	6.15	10.09	0.00	1.63	1.73	7.97	0.20	0.00	1.96	4.41	5.21
7	-	1.31	850	8.00	6.94	13.18	0.00	1.57	1.91	9.15	0.26	0.30	3.97	3.33	6.33
8	-	1.22	824	7.85	7.18	14.74	1.92	1.19	1.96	9.01	0.29	1.82	3.55	2.86	4.48
9	-	1.16	793	7.93	7.05	15.04	3.27	0.89	2.13	8.66	0.28	2.13	4.18	1.69	3.98
10	-	0.87	594	8.51	3.93	7.36	0.00	1.17	2.10	5.02	0.37	0.08	2.89	2.85	2.82
11	-	0.69	455	8.38	2.38	3.43	0.00	1.97	1.61	3.25	0.28	0.00	1.18	3.96	1.59
12	-	1.08	758	8.04	8.44	10.26	0.00	1.73	1.74	7.16	0.38	0.85	2.22	6.32	1.66
1984	-	1.19	793	7.85	6.30	12.05	0.00	1.46	1.95	8.22	0.26	0.44	2.94	4.00	4.49

LOCATION : M103 LOWER PS NO 1 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 PUMP STATION : BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION:
 2 UNITS: $Q = 1.900 - 0.000 \cdot H$ QCAP = 1.900; HAV = 1.68
 3 UNITS: $Q = 4.340 - 0.000 \cdot H$ QCAP = 4.340; HAV = 1.68
 3 UNITS: $Q = 8.640 - 0.000 \cdot H$ QCAP = 8.640; HAV = 1.68
 3 UNITS: $Q = 12.010 - 1.330 \cdot H$ QCAP = 10.776; HAV = 1.68
 Q - DISCHARGE IN M³ PER SECOND
 H - SUCTION HEAD IN M
 QCAP - AVERAGE PUMP UNIT CAPACITY IN M³ PER SECOND
 HAV - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 10 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RBC	CA	MO	NA	K	CO3	HCO3	SD4	CL
1	64.33	2.63	1640	8.54	7.75	18.73	0.00	2.16	7.15	16.71	0.23	0.07	4.85	5.08	16.24
2	29.96	6.15	3847	8.68	15.48	39.04	0.00	3.94	13.32	45.49	0.65	0.86	4.68	13.99	44.51
3	71.23	3.51	2075	8.56	10.34	22.84	0.00	3.88	6.82	23.57	0.37	0.09	2.95	6.08	25.12
4	77.45	4.68	2833	8.93	11.87	24.72	0.00	4.96	10.12	32.17	0.30	0.13	2.62	10.61	33.74
5	82.22	1.64	992	8.93	9.14	10.17	0.00	2.73	3.78	9.38	0.19	0.27	2.04	4.39	9.24
6	79.96	1.73	1061	8.79	6.17	13.29	0.00	2.23	3.82	10.73	0.18	0.39	3.21	2.97	10.34
7	101.42	1.55	996	8.72	5.98	13.04	0.00	2.17	3.19	9.78	0.18	0.23	3.93	3.31	7.81
8	100.30	1.67	1078	8.60	8.77	13.25	0.00	2.77	3.30	10.06	0.33	0.04	4.80	2.51	9.11
9	105.32	2.42	1466	8.46	7.34	17.91	0.00	1.93	6.31	14.89	0.38	0.60	4.93	2.71	15.84
10	83.62	3.02	1868	8.24	8.65	19.40	0.00	2.23	7.91	19.47	0.69	0.00	3.22	7.76	19.31
11	71.76	2.53	1500	9.13	6.98	11.38	0.00	2.40	7.39	14.59	0.57	0.00	1.18	7.33	16.41
12	61.36	1.76	1210	8.95	5.01	9.94	0.00	3.18	4.82	10.01	0.47	0.00	2.04	10.64	8.77
1984	928.94	2.56	1567	8.60	7.79	17.50	0.00	2.71	5.98	16.24	0.36	0.11	3.41	5.71	16.03

LOCATION : M104 PS NO 2 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=QD+B*H$
 Q - DISCHARGE IN M**3 PER SECONDD
 QD = 9.860 - DISCHARGE IN M**3 PER SECONDD AT ZERO SUCTION HEAD
 B = -0.970 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP= 7.416 - AVERAGE PUMP CAPACITY IN M**3 PER SECONDD
 HAV = 2.520 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 15 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	28.96	1.84	1132	8.64	5.89	12.86	0.00	3.59	3.29	10.92	0.13	0.29	3.17	3.74	10.78
2	9.38	4.31	2636	7.72	8.03	21.61	0.00	6.66	11.94	24.50	0.40	0.07	5.84	7.23	30.31
3	32.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	31.18	1.86	1169	8.29	5.66	12.24	0.00	3.28	4.00	10.79	0.33	0.00	3.18	4.66	10.63
5	27.00	2.07	1295	8.51	7.89	15.55	0.00	2.53	3.71	13.94	0.34	0.16	2.33	6.27	11.79
6	27.52	2.10	1317	8.36	7.77	16.92	0.00	3.15	3.35	14.02	0.25	0.36	3.36	4.87	12.20
7	43.32	1.63	1025	8.28	5.79	12.73	0.00	3.03	2.88	9.96	0.15	0.44	3.54	3.10	8.93
8	42.54	2.38	1440	8.20	8.14	18.71	0.00	2.74	4.59	15.58	0.25	0.53	3.97	3.52	15.11
9	39.89	2.54	1554	8.07	8.17	19.58	0.00	1.76	6.34	16.43	0.32	0.11	5.13	3.27	16.34
10	31.63	2.38	1496	8.08	7.00	15.42	0.00	1.89	6.91	14.67	0.53	0.06	3.08	7.02	13.83
11	24.76	2.73	1718	8.87	7.75	12.98	0.00	2.97	6.98	17.29	0.60	0.13	0.96	11.38	15.37
12	30.55	1.83	1274	8.82	5.81	11.40	0.00	3.50	3.96	11.23	0.44	0.01	2.07	11.92	5.14
1984	369.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : M111 PS NO 11 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=QD+B*H$
 Q - DISCHARGE IN M**3 PER SECONDD
 QD = 7.050 - DISCHARGE IN M**3 PER SECONDD AT ZERO SUCTION HEAD
 B = 0.000 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP= 7.050 - AVERAGE PUMP CAPACITY IN M**3 PER SECONDD
 HAV = 2.790 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 14 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	20.94	1.37	891	8.26	5.05	10.83	0.00	2.76	2.51	8.20	0.22	0.58	3.19	3.71	6.16
2	19.34	3.04	1897	8.07	7.61	18.50	0.00	4.91	6.85	18.46	0.33	0.08	4.22	6.75	19.60
3	32.46	1.82	1088	8.26	5.24	11.41	0.00	3.58	3.62	9.95	0.28	0.07	3.18	2.64	11.59
4	30.68	1.81	1136	7.90	4.72	10.69	0.00	3.46	4.63	9.49	0.33	0.00	3.56	4.10	10.33
5	39.72	1.34	822	7.99	4.19	8.65	0.00	2.43	3.09	6.97	0.39	0.08	2.91	2.32	7.59
6	45.30	1.34	824	7.87	4.92	10.63	0.00	2.38	2.43	7.62	0.30	0.21	3.99	0.63	7.90
7	53.81	1.33	846	7.75	4.23	9.58	0.00	2.54	3.07	7.09	0.26	0.28	4.29	1.47	6.89
8	57.87	1.13	734	7.73	3.21	7.25	0.00	2.20	3.37	8.35	0.28	0.45	3.97	1.59	5.17
9	62.62	1.20	768	7.58	3.65	8.43	0.00	1.47	4.03	6.06	0.24	0.29	4.71	0.70	5.95
10	48.83	1.00	700	7.24	3.38	7.10	0.00	1.33	3.17	5.06	0.61	0.02	3.68	3.19	3.28
11	35.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	34.90	1.17	825	7.44	3.86	7.52	0.00	2.84	2.58	6.35	0.34	0.00	2.38	6.97	2.77
1984	482.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : M701 PS NO 7 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=QD+B*H$
 Q - DISCHARGE IN M**3 PER SECONDD
 QD = 8.960 - DISCHARGE IN M**3 PER SECONDD AT ZERO SUCTION HEAD
 B = -1.120 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP= 5.600 - AVERAGE PUMP CAPACITY IN M**3 PER SECONDD
 HAV = 3.000 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	22.46	2.48	1440	8.58	7.77	16.77	0.00	3.03	5.00	15.56	0.12	0.07	3.02	3.41	17.11
2	8.93	7.75	4735	7.74	13.29	36.86	0.00	10.34	18.18	50.17	0.72	0.01	6.11	12.72	60.45
3	30.99	3.42	2056	7.91	8.80	20.34	0.00	5.83	6.00	21.40	0.41	0.00	3.39	6.35	23.92
4	33.91	3.18	1953	7.96	7.40	17.86	0.00	7.57	9.12	18.64	0.27	0.00	3.92	6.29	21.42
5	31.01	3.02	1904	8.17	10.27	21.16	0.00	3.94	4.78	21.43	0.33	0.08	2.43	9.56	18.40
6	26.80	4.00	2509	7.74	11.20	27.93	0.00	4.47	7.88	27.83	0.42	0.36	4.80	8.67	26.76
7	41.45	3.23	1897	7.77	9.06	21.91	0.00	3.45	6.87	20.58	0.37	0.54	4.15	3.61	22.99
8	37.68	3.40	1937	7.77	8.51	20.88	0.00	3.00	8.51	20.42	0.61	0.70	3.97	2.51	25.30
9	41.53	3.38	1960	7.70	8.09	20.13	0.00	2.24	9.91	19.93	0.55	0.13	4.73	3.13	24.63
10	37.58	5.25	3248	7.68	12.06	28.85	0.00	3.38	13.79	35.33	1.25	0.00	3.40	12.78	37.57
11	28.79	4.20	2731	7.89	10.03	18.55	0.00	4.40	10.98	28.00	0.74	0.00	1.22	18.40	24.71
12	28.41	4.69	3347	7.63	12.19	25.87	0.00	5.87	10.16	34.52	0.80	0.00	2.04	32.66	16.64
1984	369.52	3.74	2326	7.82	9.68	22.95	0.00	4.37	8.48	24.54	0.55	0.18	3.53	9.31	24.91

LOCATION : M801 LOWER PS NO 8 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=QD+B*H$
 Q - DISCHARGE IN M³ PER SECOND
 QD = 9.200 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -1.660 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP = 5.614 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.160 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RBC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	17.57	3.91	2390.	8.05	10.76	26.55	0.00	3.68	8.50	26.55	0.23	0.00	4.87	6.78	27.43
2	4.87	17.09	10749.	7.74	28.70	82.45	0.00	18.05	28.97	134.67	1.91	0.00	7.29	27.05	144.38
3	21.39	3.14	1890.	7.57	8.41	18.54	0.00	4.01	6.95	19.69	0.36	0.00	2.52	6.92	21.30
4	19.92	3.94	2549.	7.15	10.77	24.28	0.00	5.56	7.50	27.54	0.39	0.00	2.92	13.64	24.43
5	20.39	3.03	1944.	7.76	9.19	19.97	0.00	4.12	5.97	20.56	0.45	0.18	2.69	10.36	17.85
6	20.33	3.47	2260.	7.69	10.90	25.96	0.00	4.98	5.32	24.98	0.41	0.62	3.82	10.98	20.45
7	33.73	3.58	2279.	7.72	11.83	24.84	0.00	4.79	5.04	26.22	0.48	0.78	2.91	10.79	22.04
8	26.68	5.72	3600.	7.59	17.60	42.16	0.00	5.07	7.97	44.92	0.89	1.82	2.95	15.60	38.84
9	29.97	5.03	3060.	7.37	12.38	32.04	0.00	3.13	12.38	34.47	0.59	0.34	5.30	8.49	36.42
10	25.29	4.33	2684.	7.55	10.21	23.92	0.00	3.13	12.12	28.19	0.85	0.06	3.12	11.44	29.64
11	20.91	4.87	3158.	7.93	11.32	20.89	0.00	4.38	13.03	33.39	0.84	0.13	1.04	20.49	29.95
12	19.89	4.82	3433.	7.44	12.77	28.00	0.00	5.28	10.62	36.00	0.83	0.01	2.37	32.74	17.56
1984	260.95	4.42	2828.	7.57	12.14	28.64	0.00	4.55	9.87	31.67	0.61	0.41	3.24	13.45	28.80

LOCATION : M801 EAST MEMUFEYA PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: 2 UNITS: $Q = 8.010 - 0.230 * H$; QCAP = 7.375; HAV = 2.76
 3 UNITS: $Q = 3.670 - 0.540 * H$; QCAP = 2.180; HAV = 2.76
 Q - DISCHARGE IN M³ PER SECOND
 H - SUCTION HEAD IN M
 QCAP - AVERAGE PUMP UNIT CAPACITY IN M³ PER SECOND
 HAV - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 12 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RBC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	11.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2.35	2.13	1621.	7.97	4.46	12.34	0.00	7.40	4.81	11.03	0.31	0.00	8.56	7.61	7.39
3	10.59	0.77	922.	8.21	2.30	4.61	0.00	2.35	1.83	3.33	0.14	0.00	2.98	1.98	2.64
4	7.12	1.18	793.	7.80	2.86	6.44	0.00	3.47	3.15	5.21	0.11	0.00	3.75	3.37	4.83
5	10.80	0.85	562.	8.33	2.55	4.93	0.00	2.46	2.02	3.82	0.14	0.17	2.34	2.99	2.92
6	12.14	0.70	442.	8.38	2.41	4.47	0.00	1.83	1.58	3.15	0.10	0.17	2.41	1.03	3.04
7	8.24	1.02	689.	8.08	3.19	7.14	0.00	2.32	2.48	5.05	0.20	0.34	4.16	1.46	4.24
8	11.09	1.01	698.	8.13	3.88	8.40	0.16	1.97	2.34	5.69	0.28	0.50	3.97	2.12	3.66
9	12.12	0.91	645.	8.01	2.42	5.49	0.00	2.39	2.73	3.87	0.27	0.10	4.53	1.66	2.97
10	8.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9.12	0.89	592.	8.61	1.45	2.60	0.00	2.45	3.81	2.97	0.30	0.00	1.46	8.26	2.37
12	13.46	0.80	566.	8.05	1.35	2.69	0.00	2.55	3.22	2.30	0.28	0.00	2.23	4.69	1.42
1984	116.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : M802 BEGAYYA PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=QD+B*H$
 Q - DISCHARGE IN M³ PER SECOND
 QD = 5.540 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -0.440 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP = 5.448 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 0.210 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RBC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	17.41	0.97	675.	8.46	2.96	6.38	0.00	2.43	2.67	4.73	0.13	0.22	3.44	3.28	2.99
2	2.10	3.82	2682.	7.19	8.08	23.44	0.00	9.33	7.63	23.54	0.54	0.14	10.97	9.98	20.65
3	16.56	1.01	446.	7.70	4.81	8.54	0.00	2.11	1.40	5.97	0.18	0.00	3.03	1.79	4.85
4	12.51	1.14	749.	7.95	3.88	7.74	0.00	2.69	2.30	6.13	0.20	0.00	2.76	3.69	4.88
5	11.10	1.10	732.	8.05	5.10	9.95	0.00	2.00	1.70	6.94	0.30	0.10	2.78	3.61	4.49
6	14.01	1.41	933.	7.64	4.50	10.40	0.00	3.22	2.89	7.92	0.18	0.34	4.12	3.02	4.54
7	21.77	1.24	832.	7.57	3.55	8.24	0.00	3.35	2.76	6.21	0.20	0.50	4.25	2.33	5.49
8	21.92	1.26	849.	7.88	3.43	7.93	0.00	3.20	3.14	6.11	0.35	0.46	4.04	3.05	5.26
9	24.30	1.17	806.	7.57	3.57	8.31	0.00	1.62	4.04	6.00	0.24	0.08	5.05	2.09	4.69
10	20.60	1.30	893.	7.21	3.88	8.83	0.00	1.61	4.89	6.83	0.36	0.04	4.24	4.12	4.93
11	16.30	1.37	919.	8.17	3.36	9.92	0.00	8.91	4.46	6.45	0.38	0.13	1.23	8.76	4.07
12	19.71	1.35	979.	7.84	3.91	8.02	0.00	3.46	3.31	7.19	0.38	0.01	2.51	9.33	2.50
1984	198.28	1.24	845.	7.62	3.82	8.42	0.00	2.67	3.19	6.55	0.27	0.20	3.60	4.11	4.76

LOCATION : M003 MAHALLET RUM PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=GD+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 GD = 2.460 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = 0.000 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $GCAP$ = 2.460 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.120 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	5.76	1.66	1088.	8.38	5.77	13.87	0.00	1.82	4.44	10.20	0.16	0.51	5.60	2.13	8.41
2	0.66	3.80	2821.	7.52	5.85	18.06	0.00	11.34	11.25	19.66	0.44	0.33	13.38	11.37	17.37
3	4.78	0.89	608.	7.92	2.55	5.30	0.00	2.95	1.91	3.97	0.15	0.00	3.20	2.53	3.17
4	4.82	0.96	650.	8.27	2.15	4.72	0.00	3.03	2.79	3.66	0.19	0.00	3.55	2.38	3.75
5	5.60	0.82	530.	8.39	2.45	4.69	0.00	2.36	1.89	3.57	0.18	0.13	2.37	2.23	3.24
6	5.15	0.84	542.	8.31	3.00	5.89	0.00	1.89	2.03	4.20	0.11	0.42	2.59	1.79	3.46
7	4.78	1.02	690.	8.06	3.10	6.98	0.00	2.66	2.43	4.95	0.19	0.38	4.20	1.47	4.17
8	6.16	0.97	697.	8.00	2.81	6.43	0.00	2.48	2.73	4.53	0.25	0.05	4.82	1.88	3.24
9	7.57	0.98	390.	8.07	1.41	2.72	0.00	1.41	2.19	1.90	0.17	0.00	2.75	1.14	1.77
10	7.32	0.66	447.	7.62	1.58	3.04	0.00	1.18	2.87	2.24	0.29	0.00	2.56	2.18	1.83
11	9.81	0.92	621.	8.61	1.82	3.13	0.00	2.52	3.51	3.16	0.29	0.00	1.35	5.84	2.29
12	8.38	1.04	749.	8.32	2.74	5.45	0.00	2.65	3.28	4.72	0.31	0.00	2.32	6.98	1.66
1984	66.78	0.96	654.	8.07	2.71	5.74	0.00	2.30	2.85	4.34	0.22	0.12	3.25	3.01	3.34

LOCATION : M004 SEMATAY PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=GD+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 GD = 6.590 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -1.250 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $GCAP$ = 4.553 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 1.630 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	24.97	0.96	648.	8.62	2.42	9.33	0.00	3.17	2.45	4.06	0.12	0.58	3.13	2.73	3.31
2	7.98	3.14	1995.	7.51	5.18	14.01	0.00	9.22	7.47	14.97	0.36	0.14	5.97	6.05	19.84
3	28.26	1.23	777.	7.62	3.64	7.71	0.00	3.58	2.03	6.09	0.20	0.00	3.26	2.17	6.48
4	31.08	1.31	837.	8.09	3.77	8.03	0.00	3.80	2.25	6.56	0.20	0.00	3.17	3.02	6.68
5	32.28	1.11	725.	8.18	3.48	7.03	0.00	2.99	2.18	5.59	0.25	0.16	2.65	3.44	4.76
6	33.74	1.04	680.	8.07	3.74	7.84	0.00	2.56	1.92	5.60	0.12	0.21	3.47	1.85	4.65
7	39.79	1.23	833.	7.94	4.29	9.57	0.00	2.83	2.45	6.98	0.22	0.28	4.16	2.47	5.56
8	35.17	1.35	908.	7.98	4.97	11.04	0.00	2.68	2.49	7.99	0.46	0.50	4.04	3.20	5.85
9	36.36	1.28	871.	7.69	3.77	8.97	0.00	2.36	3.74	6.59	0.24	0.10	5.38	1.76	5.68
10	31.76	1.23	827.	7.41	3.54	7.92	0.00	1.65	4.34	6.13	0.33	0.00	4.01	3.48	4.96
11	23.48	1.37	904.	7.41	3.59	6.17	0.00	3.08	3.90	6.70	0.33	0.00	1.31	7.82	4.89
12	27.82	1.35	955.	7.24	3.97	7.88	0.00	3.30	3.28	7.20	0.35	0.00	2.24	8.86	3.03
1984	352.70	1.27	843.	7.70	3.82	8.37	0.00	3.02	2.91	6.57	0.26	0.17	3.53	3.58	5.48

LOCATION : M005 PS NO 5 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=GD+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 GD = 6.500 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -0.520 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $GCAP$ = 6.094 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 0.780 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	13.36	1.17	779.	8.67	5.12	10.87	0.28	1.89	2.22	7.34	0.17	0.51	3.89	2.26	5.03
2	3.52	3.96	2545.	7.70	8.04	22.55	0.00	7.60	9.21	23.31	0.47	0.14	8.19	6.59	25.58
3	14.76	1.50	926.	7.87	4.76	10.39	0.00	3.14	2.85	8.23	0.23	0.00	3.71	2.02	8.67
4	14.46	1.73	1042.	7.82	5.60	11.97	0.00	2.96	3.38	9.98	0.23	0.00	3.29	2.59	10.67
5	11.89	1.80	1149.	8.22	6.69	14.03	0.00	3.00	3.05	11.65	0.21	0.16	3.05	5.20	9.47
6	17.42	1.39	880.	8.07	4.65	10.51	0.00	3.20	2.44	7.81	0.17	0.58	4.00	1.71	7.25
7	26.00	1.16	756.	8.01	3.58	8.12	0.00	2.89	2.57	5.92	0.15	0.66	3.92	1.67	5.24
8	24.07	1.56	1027.	7.96	5.37	12.64	0.00	2.01	4.07	9.37	0.25	0.57	4.88	2.80	7.42
9	31.46	1.54	1003.	7.83	4.89	11.64	0.00	1.78	4.57	8.71	0.22	0.08	5.45	1.77	7.99
10	20.79	1.60	1039.	7.69	4.79	10.71	0.00	1.76	5.11	8.87	0.38	0.06	3.71	4.58	7.77
11	14.97	1.49	952.	8.55	3.75	6.43	0.00	2.34	5.25	7.30	0.32	0.13	1.11	7.54	6.42
12	13.34	1.60	1134.	8.20	4.79	10.03	0.00	2.93	4.40	9.18	0.42	0.01	2.65	10.08	4.19
1984	206.04	1.53	990.	7.96	4.88	11.02	0.00	2.54	3.81	8.69	0.25	0.27	3.93	3.50	7.56

LOCATION : MG06 GHARSHA BRIDGE NO 6 YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 13 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RBC	CA	NO	NA	N	CO3	HCO3	SO4	CL
1	-	1.29	873.	8.59	4.90	10.06	0.00	2.76	2.74	7.46	0.13	0.22	4.18	3.29	5.31
2	-	2.87	1829.	7.99	5.36	14.44	0.00	7.02	7.42	14.39	0.24	0.02	6.57	4.79	17.74
3	-	1.60	1013.	7.79	4.49	10.19	0.00	4.13	2.90	8.41	0.22	0.00	3.88	2.94	8.89
4	-	1.38	847.	8.21	3.23	6.83	0.00	4.29	2.67	6.02	0.22	0.00	2.78	3.42	7.02
5	-	1.21	774.	8.56	3.56	7.00	0.00	2.99	2.65	5.97	0.33	0.14	2.24	4.09	5.49
6	-	1.19	766.	8.42	4.37	9.19	0.00	2.34	2.34	6.69	0.29	0.35	3.27	2.42	5.65
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	1.38	935.	8.11	4.11	9.91	0.00	1.93	4.40	7.32	0.28	0.02	5.76	1.88	6.27
10	-	1.43	957.	8.22	4.13	9.46	0.00	1.57	8.09	7.93	0.40	0.04	4.22	4.12	6.18
11	-	1.39	905.	8.85	3.79	6.35	0.00	2.65	4.19	7.01	0.34	0.06	1.16	7.63	5.28
12	-	1.37	983.	8.39	4.01	8.21	0.00	3.73	3.00	7.36	0.38	0.00	2.90	8.80	3.16
1984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : MG07 PS NO 6 YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=90+3H$
 Q - DISCHARGE IN M³ PER SECOND
 $Q0$ = 7.230 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 S = -0.860 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $QCAP$ = 9.510 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.000 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 15 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RBC	CA	NO	NA	N	CO3	HCO3	SO4	CL
1	11.84	2.00	1258.	8.42	4.25	13.61	0.00	3.82	3.74	12.16	0.13	0.14	3.08	5.35	11.27
2	1.61	11.44	7707.	7.57	21.57	43.82	0.00	15.22	19.44	89.79	0.86	0.08	9.22	31.13	84.98
3	12.91	3.29	1943.	8.11	12.68	26.12	0.00	3.86	3.40	24.15	0.29	0.03	2.91	4.95	23.78
4	14.46	3.99	2420.	8.43	9.08	20.92	0.00	6.78	8.17	24.82	0.29	0.07	2.85	9.05	28.04
5	9.84	4.89	2032.	8.17	13.15	28.61	0.00	5.97	6.70	35.12	0.31	0.14	2.32	12.82	34.62
6	13.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	19.64	3.30	1922.	7.86	8.16	19.85	0.00	4.81	6.95	19.79	0.32	0.33	4.03	3.60	23.87
8	17.61	3.79	2237.	7.81	9.59	24.06	0.00	5.75	6.78	23.97	0.41	0.44	4.71	3.85	27.87
9	17.32	4.11	2484.	7.66	9.60	26.61	0.00	8.47	5.96	25.78	0.32	0.09	5.23	8.34	29.88
10	18.86	3.07	1869.	7.50	7.67	17.24	0.00	2.16	8.58	18.88	0.35	0.00	2.91	7.59	20.17
11	11.78	3.03	1985.	8.01	7.99	14.30	0.00	4.14	7.69	19.43	0.42	0.00	1.22	15.24	15.23
12	12.46	4.03	2840.	7.80	11.26	23.06	0.00	5.84	7.74	29.39	0.38	0.00	1.91	27.17	14.43
1984	158.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : MG08 HAMIL PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: 1 UNITS: $Q = 11.630 - 1.930 \cdot H$; $QCAP = 10.830$; $HAV = 8.87$
 2 UNITS: $Q = 8.240 - 0.000 \cdot H$; $QCAP = 8.240$; $HAV = 8.87$
 Q - DISCHARGE IN M³ PER SECOND
 H - SUCTION HEAD IN M
 $QCAP$ - AVERAGE PUMP UNIT CAPACITY IN M³ PER SECOND
 HAV - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 13 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RBC	CA	NO	NA	N	CO3	HCO3	SO4	CL
1	6.49	1.20	787.	8.72	3.43	7.42	0.00	3.50	2.50	8.98	0.11	0.14	3.24	3.27	5.26
2	3.21	4.68	3107.	7.46	7.87	23.29	0.00	12.62	9.69	24.27	0.64	0.02	10.28	8.92	29.67
3	29.22	0.98	618.	7.88	3.36	6.86	0.00	2.71	1.56	4.91	0.21	0.00	2.78	1.77	4.76
4	14.85	1.76	1164.	7.69	4.10	9.61	0.00	5.72	3.28	8.71	0.26	0.15	3.69	5.64	8.43
5	35.08	1.63	1028.	8.09	5.62	11.13	0.00	3.84	2.61	9.86	0.18	0.28	2.16	5.19	8.85
6	32.39	1.36	812.	8.02	5.24	10.62	0.00	2.22	2.50	8.05	0.18	0.33	2.89	1.65	7.98
7	25.02	1.78	1049.	7.77	4.84	11.38	0.00	3.10	4.31	9.33	0.20	0.50	4.02	0.81	11.65
8	32.89	1.42	809.	7.88	3.48	7.64	0.00	2.77	3.83	6.32	0.27	0.37	3.03	0.50	9.35
9	35.16	1.94	1179.	7.64	5.09	12.23	0.00	2.18	6.13	10.35	0.21	0.07	4.78	2.04	11.97
10	10.13	2.77	1839.	7.42	5.78	14.06	0.00	5.71	7.77	18.00	0.64	0.00	3.82	10.38	14.93
11	23.08	1.25	768.	8.22	3.66	5.81	0.00	3.40	2.33	6.20	0.24	0.00	1.01	5.04	6.12
12	4.72	1.88	1108.	7.57	4.62	9.41	0.00	3.88	3.46	8.86	0.40	0.00	2.36	9.56	4.66
1984	251.91	1.60	986.	7.83	4.88	10.03	0.00	3.26	3.62	8.50	0.23	0.20	3.17	3.15	9.07

LOCATION : M104 BALAMOUN PS YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 13 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	-	0.37	393.	8.08	1.38	2.72	0.00	2.74	0.88	1.85	0.06	0.06	2.97	0.90	1.59
2	-	0.51	343.	7.60	1.06	2.07	0.00	1.95	1.44	1.38	0.08	0.01	2.94	0.38	1.52
3	-	0.49	358.	7.78	1.02	2.04	0.03	2.17	1.19	1.32	0.13	0.00	3.38	0.46	1.01
4	-	0.53	369.	7.62	0.74	1.52	0.00	2.20	1.71	1.03	0.15	0.00	3.32	0.59	1.24
5	-	0.47	310.	8.03	0.87	1.61	0.00	1.58	1.58	1.09	0.20	0.07	2.42	0.56	1.40
6	-	0.48	316.	8.18	1.49	2.54	0.00	1.43	1.31	1.74	0.10	0.12	2.08	1.01	1.35
7	-	0.48	337.	8.08	1.16	2.10	0.00	1.70	1.38	1.43	0.17	0.00	2.44	1.51	0.69
8	-	0.47	328.	7.93	0.71	1.41	0.00	1.36	2.07	0.93	0.25	0.00	3.13	0.57	0.75
9	-	0.55	375.	7.85	1.30	2.61	0.00	0.92	2.53	1.70	0.21	0.00	3.40	0.26	1.66
10	-	0.52	339.	7.78	0.93	1.70	0.00	0.89	2.58	1.22	0.30	0.00	2.28	1.15	1.56
11	-	0.55	339.	8.52	0.85	1.17	0.00	1.58	2.24	1.18	0.23	0.00	0.92	2.85	1.46
12	-	0.60	429.	8.28	1.73	2.98	0.00	1.97	1.57	2.30	0.28	0.00	1.90	3.31	0.90
1984	-	0.52	353.	7.91	1.10	2.07	0.00	1.71	1.70	1.43	0.18	0.02	2.60	1.13	1.26

LOCATION : M107 BAHR BASANDELA YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 14 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	-	0.40	283.	8.06	1.00	1.81	0.13	1.69	0.89	1.14	0.11	0.12	2.60	0.37	0.81
2	-	0.58	403.	7.77	0.93	1.93	0.00	2.31	1.97	1.38	0.06	0.03	3.10	1.31	1.29
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	0.46	311.	8.34	1.10	1.96	0.00	1.81	1.14	1.33	0.13	0.07	2.29	0.95	1.06
5	-	0.45	298.	8.24	1.26	2.00	0.00	1.59	1.11	1.47	0.17	0.07	1.65	1.39	1.21
6	-	0.40	251.	8.13	0.95	1.57	0.00	1.29	1.22	1.06	0.10	0.12	1.93	0.31	1.31
7	-	0.41	271.	8.06	0.87	1.51	0.00	1.32	1.33	1.00	0.16	0.00	2.30	0.28	1.28
8	-	0.40	273.	8.09	0.90	1.55	0.00	1.14	1.30	0.99	0.26	0.00	2.42	0.28	1.14
9	-	0.43	283.	8.08	0.77	1.34	0.00	1.10	1.80	0.93	0.21	0.00	2.14	0.84	1.09
10	-	0.46	315.	7.97	0.80	1.43	0.00	1.39	1.70	1.00	0.37	0.00	2.21	1.18	1.06
11	-	0.47	296.	8.04	0.79	1.04	0.00	1.24	1.98	1.00	0.27	0.00	0.94	2.46	1.08
12	-	0.48	333.	7.79	0.84	1.46	0.00	1.60	1.77	1.11	0.27	0.00	1.80	2.30	0.65
1984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : M108 BAHR TIRA BEF MIX YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 15 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	-	0.55	380.	8.15	1.31	2.58	0.00	2.41	1.11	1.74	0.10	0.06	2.94	0.79	1.56
2	-	0.47	336.	8.11	1.31	2.43	0.00	1.86	1.01	1.57	0.12	0.01	2.84	0.79	0.95
3	-	0.41	292.	8.08	1.24	2.15	0.05	1.85	0.57	1.37	0.13	0.00	2.48	0.57	0.92
4	-	0.47	315.	8.03	0.74	1.42	0.00	2.13	1.21	0.98	0.13	0.07	2.49	0.76	1.11
5	-	0.46	286.	8.14	1.02	1.76	0.00	1.52	1.40	1.23	0.13	0.23	1.91	0.60	1.50
6	-	0.46	287.	8.23	1.27	2.11	0.00	1.34	1.38	1.48	0.10	0.18	1.82	0.66	1.63
7	-	0.38	267.	8.18	0.91	1.57	0.00	1.33	1.14	1.01	0.18	0.00	2.37	0.89	0.68
8	-	0.37	275.	8.12	0.95	1.70	0.51	1.31	1.01	1.02	0.23	0.00	2.84	0.37	0.37
9	-	0.44	301.	8.00	1.05	1.89	0.00	1.04	1.72	1.25	0.21	0.00	2.97	0.66	0.96
10	-	0.49	331.	7.70	0.89	1.69	0.00	0.83	2.39	1.13	0.34	0.00	2.74	0.77	1.18
11	-	0.49	305.	8.51	0.83	1.15	0.00	1.25	2.05	1.07	0.26	0.00	1.03	2.37	1.23
12	-	0.49	337.	8.37	1.02	1.67	0.00	1.99	1.71	1.31	0.25	0.00	1.65	2.41	0.81
1984	-	0.46	309.	8.09	1.04	1.86	0.00	1.54	1.39	1.26	0.18	0.05	2.31	0.94	1.07

LOCATION : MNO3 NASHART OUTFALL YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 14 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	M0	NA	K	CO3	HCO3	SO4	CL
1	-	1.40	959.	8.38	5.17	11.86	0.00	2.81	2.78	8.64	0.13	0.31	4.58	3.55	9.66
2	-	2.45	1570.	8.12	5.10	12.86	0.00	5.67	6.49	12.56	0.20	0.04	4.85	6.00	13.98
3	-	1.60	999.	7.97	4.93	10.63	0.00	3.87	2.62	8.88	0.19	0.00	3.31	3.23	9.05
4	-	1.72	1076.	7.79	4.45	9.82	0.00	4.19	3.72	8.85	0.19	0.00	3.17	4.02	9.88
5	-	1.52	957.	8.03	5.33	10.59	0.00	2.68	3.01	8.99	0.29	0.11	2.48	4.41	7.96
6	-	1.64	1046.	7.96	6.77	13.81	0.00	2.21	2.90	10.82	0.33	0.35	2.88	4.62	8.38
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	1.66	1113.	7.69	5.40	12.51	0.00	2.93	3.88	9.96	0.29	0.33	4.09	5.02	7.39
9	-	1.64	1114.	7.46	4.50	11.20	0.00	2.87	4.83	8.83	0.22	0.11	5.99	3.19	7.46
10	-	1.39	948.	7.49	4.81	10.76	0.00	1.97	4.20	8.16	0.33	0.26	4.05	4.37	5.98
11	-	1.25	798.	7.79	4.52	7.14	0.00	1.92	3.01	7.09	0.36	0.45	0.84	7.07	4.00
12	-	1.56	1071.	7.88	5.67	10.38	0.00	2.50	3.38	9.72	0.40	0.03	1.85	10.16	3.94
1984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : MNO4 ZEINI PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION:

1 UNITS: $Q = 5.340 - 0.980 * H$; GCAP = 2.175; HAV = 3.23
 2 UNITS: $Q = 8.310 - 1.200 * H$; GCAP = 4.434; HAV = 3.23
 Q - DISCHARGE IN M**3 PER SECOND
 H - SUCTION HEAD IN M
 GCAP - AVERAGE PUMP UNIT CAPACITY IN M**3 PER SECOND
 HAV - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 11 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	M0	NA	K	CO3	HCO3	SO4	CL
1	9.18	1.56	914.	8.69	4.10	8.81	0.00	3.64	3.42	7.71	0.12	0.43	2.56	2.33	9.51
2	4.76	3.88	2115.	8.00	9.06	21.86	0.00	5.34	6.93	22.45	0.20	0.06	4.08	4.89	25.82
3	7.70	3.24	1922.	7.68	9.29	21.80	0.00	4.40	5.87	21.05	0.18	0.00	4.04	4.49	22.85
4	7.86	2.27	1428.	7.44	6.58	15.24	0.00	4.34	4.28	13.66	0.27	0.00	4.01	5.01	13.53
5	7.01	2.78	1676.	7.89	9.28	19.37	0.00	3.40	4.85	18.86	0.37	0.27	2.42	6.69	17.90
6	7.38	3.60	2178.	7.76	11.92	27.03	0.00	2.96	6.50	25.92	0.36	0.80	2.97	7.37	24.59
7	11.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	13.64	2.45	1810.	7.53	6.74	16.68	0.00	3.41	5.99	14.61	0.25	0.62	4.83	3.62	15.14
9	15.89	2.30	1431.	7.44	7.41	17.67	0.00	2.35	5.45	14.64	0.19	0.10	5.02	3.57	13.92
10	14.36	2.49	1824.	7.11	9.21	20.17	0.00	2.19	7.15	19.92	0.41	0.00	3.06	7.13	19.47
11	9.21	4.19	2638.	7.73	11.12	20.57	0.00	3.39	10.19	28.97	0.67	0.00	1.32	13.03	26.87
12	8.50	3.29	2276.	7.50	10.17	20.90	0.00	3.63	7.11	23.55	0.59	0.00	2.18	20.79	11.91
1984	117.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : MTO1 TIRA PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION:

$Q = 60 + 8 * H$
 Q - DISCHARGE IN M**3 PER SECOND
 Q0 = 6.200 - DISCHARGE IN M**3 PER SECOND AT ZERO SUCTION HEAD
 S = 0.000 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 GCAP = 6.200 - AVERAGE PUMP CAPACITY IN M**3 PER SECOND
 HAV = 3.380 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 15 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	M0	NA	K	CO3	HCO3	SO4	CL
1	24.68	5.30	3055.	8.29	10.95	27.22	0.00	4.47	14.07	33.36	0.33	0.72	3.18	6.88	41.45
2	7.91	18.01	9353.	7.63	21.42	61.53	0.00	13.84	36.29	106.93	2.03	0.24	6.11	25.63	126.86
3	27.13	5.55	3328.	8.19	18.04	40.83	0.00	4.84	6.45	42.85	0.66	0.07	3.54	8.55	42.72
4	26.30	5.88	3649.	8.18	13.48	31.98	0.00	7.78	10.70	40.98	0.79	0.00	3.18	13.76	43.36
5	24.80	4.79	2922.	8.08	12.92	28.77	0.00	4.98	8.73	33.82	0.67	0.00	2.77	10.64	34.78
6	31.53	4.66	2801.	7.72	13.72	33.07	0.00	3.74	8.89	34.05	0.53	0.30	4.13	4.27	38.16
7	48.50	5.36	3134.	7.59	13.83	34.76	0.00	3.91	10.72	37.40	0.52	0.54	4.49	5.88	41.58
8	50.12	5.14	2989.	7.55	13.51	34.46	0.00	3.82	10.20	35.76	0.32	0.62	5.00	4.46	39.97
9	50.01	4.64	2822.	7.49	11.67	30.11	0.00	4.82	10.07	31.81	0.26	0.12	5.58	7.24	33.38
10	35.69	6.50	3993.	7.64	14.48	35.24	0.00	3.86	16.28	45.96	0.63	0.03	3.48	14.55	48.71
11	26.54	8.08	8243.	7.64	16.84	33.18	0.00	8.93	19.60	60.17	1.16	0.06	1.23	27.99	57.52
12	24.38	8.27	6007.	7.35	18.78	43.50	0.00	7.29	17.96	66.73	1.13	0.00	2.55	55.81	34.73
1984	377.59	5.86	3622.	7.66	14.29	35.34	0.00	4.96	12.32	42.02	0.61	0.26	3.90	12.87	42.89

3.2.3. Western Delta

LOCATION : WSO1 BARSIG PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 , PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 Q_0 = 4.340 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -0.640 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $QCAP$ = 2.740 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.500 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 17 WATER SAMPLES

MONTH	DISCH NIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	NO	NA	N	CO3	HCO3	SD4	CL
1	13.92	1.85	1158.	7.86	5.42	12.16	0.00	3.66	3.79	10.45	0.20	0.20	3.49	4.06	10.52
2	9.72	2.63	1633.	8.67	6.17	14.91	0.00	4.78	6.42	14.61	0.45	0.19	3.96	5.84	14.31
3	18.33	2.99	1748.	8.21	9.74	20.25	0.00	3.36	5.05	19.98	0.38	0.19	2.49	4.98	21.17
4	20.40	3.13	1978.	7.53	8.89	19.75	0.00	5.26	9.45	20.56	0.47	0.04	2.94	9.12	19.65
5	24.34	2.94	1773.	7.62	10.18	22.04	0.00	3.87	4.09	20.31	0.37	0.05	3.25	5.36	19.98
6	25.73	3.85	2156.	8.26	12.72	27.87	0.00	2.93	5.64	26.34	0.27	0.37	2.92	7.60	24.25
7	29.49	3.90	2435.	8.12	13.30	30.31	0.00	3.15	6.72	29.54	0.22	0.84	3.00	10.26	23.49
8	29.73	2.79	1733.	8.05	8.68	20.30	0.00	3.05	6.19	18.66	0.29	1.13	3.08	7.06	16.85
9	28.25	3.07	1973.	8.01	9.58	22.82	0.00	2.02	8.03	21.47	0.24	0.97	3.51	9.70	17.89
10	23.88	2.33	1508.	7.85	6.49	16.19	0.00	2.06	7.39	14.11	0.20	0.33	5.30	5.52	12.60
11	16.77	2.09	1429.	7.31	6.32	13.79	0.00	2.75	5.47	12.80	0.56	0.00	3.10	11.70	6.78
12	14.93	5.01	3532.	7.62	12.93	32.12	0.00	5.51	10.97	37.11	1.06	0.00	4.30	27.64	22.71
1984	255.50	3.05	1936.	7.81	9.61	22.10	0.00	3.34	6.28	21.07	0.36	0.44	3.40	8.78	18.42

LOCATION : WEO1 ETAY BARUD PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 , PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 Q_0 = 2.440 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = 0.000 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $QCAP$ = 2.440 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 3.900 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 19 WATER SAMPLES

MONTH	DISCH NIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	NO	NA	N	CO3	HCO3	SD4	CL
1	5.48	0.94	643.	7.61	1.74	3.75	0.00	3.99	2.35	3.10	0.14	0.02	2.97	3.39	3.19
2	2.01	1.21	827.	7.98	3.08	6.86	0.00	3.79	2.57	5.49	0.44	0.18	3.50	3.81	4.91
3	5.45	0.85	549.	8.14	2.16	4.00	0.00	2.28	2.57	3.36	0.18	0.13	1.87	3.26	3.17
4	6.12	1.02	660.	7.57	2.69	5.22	0.00	2.88	2.60	4.43	0.18	0.04	2.17	3.77	4.13
5	6.20	0.79	509.	7.60	2.42	4.57	0.00	2.20	1.88	3.46	0.16	0.25	2.20	1.98	3.28
6	6.90	0.92	576.	7.98	2.23	4.50	0.00	1.97	3.31	3.63	0.20	0.63	1.97	2.82	3.69
7	7.38	0.97	635.	7.78	1.32	2.94	0.00	2.70	4.56	2.52	0.21	0.76	2.37	3.87	2.98
8	7.21	0.93	634.	7.82	2.44	5.37	0.00	2.87	2.68	3.96	0.25	0.45	3.42	2.35	3.22
9	9.45	0.99	708.	7.63	2.85	6.65	0.00	1.46	3.90	4.67	0.19	0.00	5.25	1.65	3.32
10	9.11	1.14	803.	7.57	2.70	6.54	0.00	2.13	4.50	4.91	0.23	0.00	5.48	2.08	4.21
11	6.16	1.52	1075.	7.71	4.43	9.81	0.00	2.49	4.71	8.41	0.47	0.00	2.98	8.80	4.30
12	6.62	1.18	862.	7.37	3.43	7.63	0.00	2.15	4.06	6.04	0.36	0.00	3.77	5.86	2.98
1984	78.10	1.03	703.	7.67	2.60	5.70	0.00	2.41	3.45	4.46	0.24	0.21	3.32	3.48	3.55

LOCATION : WEO2 BHUBRAKHIT PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 , PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 Q_0 = 6.850 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -0.860 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $QCAP$ = 5.518 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 1.200 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 19 WATER SAMPLES

MONTH	DISCH NIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	NO	NA	N	CO3	HCO3	SD4	CL
1	19.26	1.46	939.	7.85	4.85	10.41	0.00	2.94	2.99	8.35	0.22	0.19	3.25	3.71	7.36
2	9.64	3.43	2237.	8.49	9.87	22.65	0.00	5.96	5.43	23.54	0.63	0.21	3.32	11.98	20.55
3	22.93	0.89	573.	8.44	2.20	4.37	0.00	3.06	2.00	3.81	0.16	0.14	2.36	2.53	3.70
4	20.71	1.06	711.	7.41	2.46	5.23	0.00	3.69	2.42	4.30	0.27	0.05	2.92	3.59	4.11
5	25.86	0.81	514.	7.44	2.96	5.53	0.00	1.78	1.78	3.95	0.28	0.13	2.81	1.46	3.66
6	24.89	1.27	835.	8.49	7.08	12.93	0.00	2.07	1.26	9.09	0.13	0.46	2.50	4.85	5.07
7	30.33	1.52	1035.	8.28	7.66	15.39	0.00	2.22	1.95	11.06	0.20	0.70	2.93	6.86	4.98
8	32.92	1.10	708.	8.19	3.21	6.82	0.00	1.73	3.76	5.32	0.24	0.73	2.84	3.42	4.36
9	34.63	1.10	744.	7.96	2.89	6.74	0.00	1.50	4.51	5.02	0.17	0.19	4.88	1.98	4.45
10	32.44	0.96	678.	7.87	2.16	5.20	0.00	1.68	4.22	3.71	0.18	0.00	5.68	0.68	3.43
11	21.57	1.13	818.	7.48	3.08	6.40	0.00	1.99	4.31	5.47	0.31	0.00	3.08	6.47	2.92
12	22.57	1.02	733.	7.14	2.90	6.28	0.00	1.72	3.87	4.85	0.34	0.00	3.81	4.65	2.81
1984	297.75	1.19	800.	7.72	3.92	8.42	0.00	2.25	3.16	6.44	0.23	0.26	3.35	3.77	4.71

LOCATION : WE03 ZARQUN PB YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 , PUMP STATION , BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B*H$
 Q - DISCHARGE IN M³ PER SECOND
 Q_0 = 9.210 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -2.300 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $QCAP$ = 5.185 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 1.750 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 17 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	13.56	2.83	1786	8.62	8.12	19.06	0.00	4.84	5.22	18.22	0.23	0.33	3.68	7.19	17.46
2	7.62	1.49	964	8.67	4.27	9.63	0.00	3.39	3.29	7.79	0.34	0.27	3.71	3.31	7.64
3	12.39	1.05	661	8.01	3.11	6.11	0.00	2.61	2.44	4.94	0.22	0.15	2.36	2.70	5.05
4	15.67	1.05	668	7.34	3.57	6.55	0.00	2.38	2.20	5.40	0.25	0.04	2.08	3.43	4.72
5	16.93	1.06	680	7.38	3.89	7.52	0.00	2.05	2.31	5.75	0.24	0.20	2.48	2.95	4.82
6	20.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	23.93	1.06	654	8.12	3.60	7.35	0.00	1.68	2.96	5.48	0.19	0.64	2.55	1.97	5.14
8	24.53	1.08	691	7.89	2.80	6.48	0.00	1.59	4.20	4.77	0.18	0.73	3.96	1.08	4.97
9	25.62	1.10	731	7.83	3.39	7.95	0.34	1.22	4.06	5.51	0.18	0.41	5.20	0.36	4.98
10	21.41	1.37	913	7.70	3.19	7.93	0.00	2.64	4.71	6.11	0.25	0.00	6.00	1.05	6.67
11	16.76	2.07	1438	7.60	5.86	12.53	0.00	2.92	6.05	12.41	0.91	0.00	2.64	12.31	6.95
12	14.95	1.27	883	7.37	3.93	8.32	0.00	1.71	4.30	6.82	0.41	0.00	3.11	5.99	4.14
1984	214.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : WE04 EDKO IRR. PB YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 , PUMP STATION , BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B*H$
 Q - DISCHARGE IN M³ PER SECOND
 Q_0 = 6.380 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = 0.000 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $QCAP$ = 6.380 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.400 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	17.59	1.03	668	8.27	2.81	5.98	0.00	3.04	2.33	4.61	0.18	0.20	3.11	2.25	4.57
2	8.06	1.75	1116	8.66	4.64	10.83	0.00	3.74	4.16	9.23	0.32	0.24	3.96	3.78	9.48
3	27.42	0.92	566	8.27	2.55	4.65	0.00	2.68	2.06	3.92	0.15	0.08	1.87	2.56	4.31
4	30.29	1.00	634	7.84	2.33	4.35	0.00	3.15	2.59	3.94	0.16	0.03	1.83	3.70	4.28
5	30.85	0.98	614	7.59	2.63	5.15	0.00	3.03	2.05	4.19	0.19	0.13	2.28	2.93	4.53
6	30.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	33.46	1.11	673	8.45	4.44	8.52	0.00	1.97	1.98	6.25	0.30	0.42	2.43	1.74	5.91
8	35.21	1.10	716	8.17	3.13	6.93	0.00	2.38	3.01	5.15	0.26	0.03	4.00	1.91	5.26
9	30.78	1.20	789	8.12	3.73	8.44	0.00	1.71	3.79	6.19	0.18	0.00	4.53	1.82	5.52
10	32.09	1.04	681	8.01	2.44	5.63	0.00	1.44	4.20	4.20	0.24	0.00	4.41	1.13	4.74
11	30.09	0.85	578	7.71	2.20	4.18	0.00	1.43	3.48	3.45	0.29	0.00	2.17	4.34	2.14
12	28.53	0.99	702	7.47	2.93	6.19	0.00	1.68	3.53	4.73	0.35	0.00	3.33	4.24	2.72
1984	335.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : WE05 DILINGAT PB YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 , PUMP STATION , BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B*H$
 Q - DISCHARGE IN M³ PER SECOND
 Q_0 = 8.170 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -1.050 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 $QCAP$ = 5.020 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 3.000 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 19 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	17.42	0.90	641	7.86	2.50	5.57	0.00	2.91	2.22	4.00	0.15	0.37	3.85	2.54	2.54
2	11.99	0.94	654	8.43	2.91	6.02	0.00	2.52	2.27	4.51	0.30	0.20	2.99	3.40	3.08
3	14.35	0.83	582	8.36	2.33	4.76	0.00	2.28	2.46	3.59	0.20	0.08	2.90	3.25	2.27
4	14.01	1.02	715	8.07	2.93	5.91	0.00	2.95	2.47	4.82	0.29	0.03	2.62	5.03	2.85
5	13.47	0.93	605	8.00	2.95	5.84	0.00	2.09	2.42	4.42	0.21	0.17	2.63	2.67	3.67
6	12.88	0.90	571	8.49	3.62	6.91	0.00	1.93	1.70	4.88	0.18	0.47	2.45	1.86	3.93
7	12.96	1.07	724	8.23	3.29	7.18	0.00	3.02	2.21	5.32	0.34	0.67	3.14	3.16	3.90
8	15.65	0.91	631	8.06	1.79	4.17	0.00	2.62	3.45	3.11	0.27	0.84	3.71	2.48	2.37
9	19.43	0.82	580	8.09	2.00	4.54	0.00	1.27	3.77	3.18	0.23	0.35	4.24	1.69	2.16
10	20.05	0.84	604	7.99	1.58	3.73	0.00	2.00	3.74	2.68	0.20	0.00	4.92	1.41	2.28
11	17.93	1.00	728	7.65	2.22	4.59	0.00	2.23	4.23	3.99	0.30	0.00	2.53	6.65	1.56
12	18.30	1.00	751	7.61	1.99	4.53	0.00	2.82	3.99	3.67	0.35	0.00	3.72	5.42	1.70
1984	188.44	0.92	649	7.96	2.38	5.20	0.00	2.36	3.03	3.91	0.25	0.25	3.40	3.30	2.59

LOCATION : WE09 HALO EL GAML BRIDGE YEAR : 1984 CODE : 21
 MEASUREMENT POINT CODE: 21 ; OPEN DRAIN ; BASIC DATA: WATER LEVEL MEASUREMENTS

DISCHARGE RELATION : $Q = A + B * HM$
 Q - DISCHARGE IN M**3 PER SECOND
 A = 233.300 - Q INTERCEPT FOR HM = 0
 B = -77.250 - SLOPE OF Q-HM RELATION
 HM= - DISTANCE TO WATERLEVEL FROM FIXED POINT
 R2= 0.760 - CORRELATION COEFFICIENT

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 19 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	73.97	1.27	808.	7.76	4.43	9.75	0.00	2.38	2.75	7.09	0.19	0.40	3.89	1.54	6.60
2	39.02	2.07	1278.	8.44	7.44	16.61	0.00	3.09	3.35	13.40	0.35	0.41	3.73	3.48	12.63
3	45.62	1.23	782.	8.14	3.93	6.19	0.00	3.20	2.14	6.42	0.23	0.13	3.05	2.60	6.24
4	57.76	1.02	648.	7.17	2.97	5.45	0.00	2.95	2.03	4.70	0.27	0.04	1.91	3.56	4.44
5	35.44	1.17	735.	7.60	4.54	9.01	0.00	2.20	2.23	6.75	0.15	0.20	2.83	2.39	5.92
6	40.31	1.81	1150.	8.13	7.42	16.09	0.00	2.07	3.43	12.31	0.21	0.69	3.42	4.39	9.49
7	78.24	1.40	867.	8.14	5.86	11.83	0.00	1.72	2.84	8.87	0.18	0.59	2.69	3.13	7.17
8	66.37	1.35	858.	7.94	4.25	9.53	0.00	2.00	3.85	7.26	0.20	0.44	3.81	2.43	6.61
9	66.07	1.37	923.	7.77	4.24	10.21	0.00	1.29	4.88	7.44	0.19	0.00	5.95	1.47	6.39
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	40.11	1.22	867.	-0.01	3.56	7.30	0.00	1.93	4.36	6.31	0.26	-0.01	2.62	7.72	2.53
12	49.50	1.26	914.	7.78	3.03	7.05	0.00	1.77	5.63	5.84	0.34	0.00	4.09	6.16	3.33
1984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : WE10 EDKO PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q = Q0 + B * H$
 Q - DISCHARGE IN M**3 PER SECOND
 Q0 = 3.920 - DISCHARGE IN M**3 PER SECOND AT ZERO SUCTION HEAD
 B = -0.220 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP= 3.216 - AVERAGE PUMP CAPACITY IN M**3 PER SECOND
 HAV = 3.200 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	8.60	3.83	2258.	7.95	8.49	21.19	0.00	5.41	8.97	22.76	0.44	0.34	4.12	5.22	27.90
2	6.89	4.41	2621.	8.68	9.42	23.79	0.00	6.83	9.44	26.89	0.57	0.56	3.93	6.64	32.58
3	12.26	3.53	2070.	8.54	11.86	28.41	0.00	4.19	4.59	24.85	0.45	0.29	2.74	5.23	25.82
4	11.11	4.51	2765.	8.02	13.03	30.65	0.00	4.40	7.80	32.17	0.86	0.34	3.55	9.29	32.06
5	16.49	3.88	2333.	7.88	13.61	30.54	0.00	2.84	5.95	28.92	0.69	0.19	3.68	6.29	27.92
6	12.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	17.73	3.45	2074.	8.42	13.02	29.66	0.00	2.87	4.98	25.79	0.23	0.97	3.50	5.65	23.76
8	23.38	2.94	1764.	8.29	9.50	22.82	0.00	3.15	5.53	19.79	0.29	1.04	4.15	3.93	19.62
9	21.47	2.63	1631.	8.15	8.40	21.24	0.00	2.91	5.48	17.21	0.22	0.59	6.46	2.08	16.69
10	16.63	3.45	2181.	8.00	9.16	24.37	0.00	4.08	7.89	22.42	0.25	0.00	7.55	4.67	22.43
11	13.63	4.03	2811.	7.68	11.14	28.38	0.00	4.14	9.14	28.69	1.30	0.00	3.07	23.56	16.63
12	9.75	4.13	2922.	7.86	10.90	26.61	0.00	3.90	10.47	29.21	1.30	0.00	4.13	23.77	16.98
1984	170.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOCATION : WE11 BOSSEILY PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q = Q0 + B * H$
 Q - DISCHARGE IN M**3 PER SECOND
 Q0 = 5.170 - DISCHARGE IN M**3 PER SECOND AT ZERO SUCTION HEAD
 B = -0.570 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP= 3.346 - AVERAGE PUMP CAPACITY IN M**3 PER SECOND
 HAV = 3.200 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	12.25	2.15	1266.	8.55	6.71	15.15	0.00	4.24	3.02	12.79	0.31	0.22	3.77	1.65	14.75
2	13.32	1.72	1031.	8.50	7.08	14.23	0.00	3.30	1.59	11.07	0.31	0.08	3.10	2.14	10.88
3	23.56	2.05	1173.	8.53	6.10	12.60	0.00	4.35	2.95	11.65	0.30	0.13	2.49	2.20	14.38
4	24.71	2.61	1589.	7.80	7.29	15.99	0.00	4.32	5.26	15.96	0.22	0.04	2.87	6.18	16.66
5	34.59	1.91	1170.	7.92	7.10	14.73	0.00	2.62	3.49	12.41	0.12	0.21	2.86	4.28	11.26
6	40.18	1.97	1258.	8.79	9.91	18.31	0.00	1.98	2.91	14.85	0.13	0.53	2.04	8.57	8.29
7	42.32	3.01	1947.	8.54	13.74	28.23	0.00	2.31	3.76	23.95	0.29	0.87	2.48	12.85	14.08
8	43.07	2.97	1743.	8.20	9.00	21.51	0.00	3.05	6.08	19.24	0.46	1.27	3.52	3.61	20.36
9	43.19	2.44	1471.	8.09	7.01	17.46	0.00	1.88	6.95	14.72	0.21	0.50	5.47	1.97	15.79
10	35.29	2.21	1379.	8.10	6.25	15.69	0.00	1.82	6.75	12.93	0.20	0.00	6.26	2.10	13.34
11	25.28	1.67	1171.	8.04	4.54	10.13	0.00	2.57	5.73	9.25	0.28	0.00	3.24	8.84	5.77
12	17.91	2.60	1824.	7.68	7.29	17.05	0.00	2.70	7.86	16.74	0.61	0.00	3.75	14.47	9.68
1984	359.68	2.32	1499.	8.13	7.91	17.83	0.00	2.66	4.89	13.37	0.27	0.42	3.59	5.87	13.33

LOCATION : W01 TABIA PB YEAR : 1984 CODE : 13
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RBC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	-	1.79	1171.	8.10	5.41	12.66	0.00	4.20	3.05	10.31	0.40	0.13	4.50	3.84	9.43
2	-	1.73	1136.	7.92	5.25	12.22	0.00	3.76	3.24	9.81	0.49	0.05	4.57	3.62	9.08
3	-	1.74	1096.	7.64	5.61	12.22	0.00	3.13	3.43	10.16	0.38	0.08	3.44	3.94	9.65
4	-	2.12	1276.	7.20	6.59	14.19	0.00	4.00	3.34	12.62	0.48	0.03	3.13	3.62	13.56
5	-	1.98	1225.	7.30	7.42	15.72	0.00	2.37	3.79	13.03	0.21	0.22	3.16	4.44	11.60
6	-	3.81	2588.	7.92	18.05	37.27	0.00	2.73	3.72	32.42	0.29	0.76	2.72	22.11	13.61
7	-	4.64	3216.	7.82	22.99	48.16	0.00	2.43	4.22	41.19	0.40	0.79	3.36	28.85	15.27
8	-	2.76	1715.	7.57	9.25	22.35	0.00	2.25	5.95	18.72	0.44	0.55	5.01	4.50	17.28
9	-	1.94	1298.	7.59	6.79	16.26	0.00	1.52	5.09	12.35	0.23	0.24	5.63	2.50	10.79
10	-	1.79	1145.	7.55	5.50	13.33	0.00	2.11	4.99	10.36	0.18	0.00	5.75	2.00	9.89
11	-	1.63	1117.	7.37	4.98	10.52	0.00	2.50	4.71	9.45	0.34	0.00	2.83	8.42	5.74
12	-	2.48	1751.	7.07	7.51	17.63	0.00	3.22	6.27	16.37	0.59	0.00	4.11	13.45	8.89
1984	-	2.35	1569.	7.47	6.81	19.92	0.00	2.76	4.39	16.65	0.36	0.25	4.03	8.44	11.44

LOCATION : W01 SHEREISHRA BRIDGE YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	-	2.35	1517.	7.76	5.78	14.03	0.00	5.44	5.02	13.21	0.26	0.21	4.23	6.32	13.15
2	-	2.28	1473.	8.56	7.55	16.94	0.00	4.54	3.25	14.91	0.34	0.16	3.59	6.46	12.79
3	-	2.45	1521.	8.30	6.89	14.85	0.00	5.15	4.18	14.88	0.23	0.15	2.58	6.88	14.78
4	-	1.94	1257.	7.62	5.92	12.49	0.00	3.75	4.06	11.49	0.23	0.05	2.69	7.00	9.98
5	-	1.40	929.	7.63	6.38	12.55	0.00	2.26	2.12	9.45	0.13	0.00	3.09	4.92	5.96
6	-	1.40	899.	8.43	7.26	13.45	0.00	1.98	1.73	9.89	0.16	0.24	2.60	4.28	6.61
7	-	1.94	1217.	8.27	8.60	17.40	0.00	2.42	2.64	13.68	0.38	0.45	2.84	4.90	10.89
8	-	2.06	1339.	8.07	7.95	17.69	0.00	2.32	3.90	14.01	0.56	0.53	3.78	5.71	10.74
9	-	2.03	1386.	7.77	6.52	16.38	0.00	1.68	6.21	12.95	0.29	0.48	6.26	5.04	9.32
10	-	1.95	1335.	7.73	5.57	14.12	0.00	2.69	5.76	11.45	0.29	0.00	6.58	4.45	9.12
11	-	2.77	1979.	7.68	8.54	18.77	0.00	3.52	6.59	19.20	0.46	0.00	2.93	19.10	7.74
12	-	2.23	1628.	7.78	6.80	15.92	0.00	3.37	5.83	14.59	0.39	0.00	4.09	14.13	5.96
1984	-	2.04	1373.	7.86	6.86	18.93	0.00	3.26	4.28	13.32	0.31	0.19	3.77	7.42	9.75

LOCATION : W02 SHEREISHRA PB YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q = Q_0 + B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 Q0 = 7.900 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = 0.000 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 GCAP = 7.900 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 1.550 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	SAR	ADJ SAR	RBC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	45.30	2.69	1704.	7.81	9.90	21.85	0.00	2.81	4.71	19.20	0.33	0.20	3.54	7.17	16.11
2	24.06	4.25	2627.	8.44	14.62	33.85	0.00	3.84	5.80	32.10	0.70	0.23	4.08	8.31	29.93
3	41.35	2.42	1578.	8.38	8.40	17.24	0.00	4.27	3.46	16.51	0.37	0.08	2.50	9.40	12.43
4	38.93	2.95	1991.	7.84	9.01	20.31	0.00	9.27	4.82	20.24	0.47	0.03	3.30	13.28	14.20
5	39.47	2.86	1915.	8.09	10.72	24.67	0.00	4.00	3.95	21.37	0.19	0.27	4.22	10.87	14.16
6	39.62	4.59	3141.	8.15	21.00	45.14	0.00	3.64	3.65	40.10	0.16	0.77	3.18	26.52	17.12
7	46.41	9.01	3480.	8.27	23.08	47.25	0.00	3.08	4.38	44.57	0.30	0.63	2.55	32.92	16.23
8	56.28	2.73	1778.	8.11	10.43	22.90	0.00	2.31	5.04	19.99	0.45	0.44	3.30	10.14	13.89
9	58.56	2.40	1626.	7.81	8.21	20.44	0.00	1.48	6.70	16.60	0.22	0.41	6.08	6.80	11.70
10	59.24	3.56	2290.	7.72	9.64	25.04	0.00	3.25	8.82	23.69	0.61	0.00	6.48	7.56	22.32
11	46.41	3.13	2176.	7.79	8.95	20.25	0.00	3.43	7.98	21.38	0.69	0.00	3.13	18.02	12.32
12	47.38	2.66	1892.	7.70	8.08	18.03	0.00	4.37	5.47	17.93	0.66	0.00	3.91	16.88	8.59
1984	543.03	3.20	2148.	7.92	11.30	25.99	0.00	3.35	5.55	23.86	0.42	0.26	3.91	13.81	15.22

LOCATION : WU03 TRUGA PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 Q0 = 10.830 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -1.370 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP = 7.405 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.500 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 17 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	47.81	3.34	2148.	8.02	8.75	21.42	0.00	4.58	7.89	21.84	0.45	0.38	4.02	10.03	20.40
2	25.97	4.22	2851.	8.28	10.77	27.61	0.00	5.72	9.18	29.41	0.84	0.31	5.00	14.92	25.00
3	37.44	2.77	1799.	8.39	8.41	17.35	0.00	4.16	5.48	18.46	0.40	0.17	2.11	11.67	14.56
4	51.71	3.18	2080.	7.73	8.79	18.31	0.00	5.73	5.88	21.19	0.29	0.09	2.09	13.47	17.47
5	47.53	3.55	2302.	7.98	11.33	25.44	0.00	4.05	6.40	23.90	0.21	0.11	3.21	12.94	20.30
6	59.34	2.99	1946.	8.23	10.68	22.49	0.00	3.11	5.37	21.98	0.16	0.34	2.49	12.94	14.93
7	55.29	3.57	2380.	8.02	11.31	26.91	0.00	4.73	6.02	24.33	0.36	0.70	3.34	15.18	18.12
8	67.75	3.48	2349.	7.87	11.63	28.30	0.00	4.20	5.80	24.02	0.57	0.71	4.50	14.81	16.99
9	66.61	3.47	2411.	7.80	11.47	28.62	0.00	3.39	7.03	26.18	0.32	0.47	5.39	15.95	15.10
10	63.59	3.20	2201.	7.69	8.26	21.54	0.00	4.72	8.30	21.07	0.21	0.13	6.01	11.60	16.55
11	51.34	3.23	2273.	7.71	9.22	20.72	0.00	4.07	7.68	22.35	0.63	0.00	2.99	20.13	11.61
12	44.94	3.80	2715.	7.75	10.49	25.10	0.00	4.91	8.34	27.02	1.00	0.00	3.87	23.25	14.18
1984	639.30	3.35	2240.	7.89	10.04	23.78	0.00	4.35	6.80	23.71	0.42	0.30	3.77	14.60	16.63

LOCATION : WU04 DUSHUDI BRIDGE YEAR : 1984 CODE : 24
 THE WATER QUALITY DATA DURING 1984 ARE BASED ON 18 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	-	2.99	1943.	8.55	8.05	19.29	0.00	4.44	6.93	19.20	0.39	0.37	3.74	9.70	17.14
2	-	2.88	1778.	8.59	7.92	18.02	0.00	4.44	5.91	18.02	0.44	0.35	3.00	7.20	18.24
3	-	2.98	1924.	8.18	9.91	21.71	0.00	3.84	5.22	21.09	0.34	0.13	3.05	10.69	16.49
4	-	3.02	1944.	8.11	9.74	20.44	0.00	4.58	4.84	21.19	0.38	0.05	2.89	11.93	16.41
5	-	3.03	1943.	8.17	11.42	24.12	0.00	3.63	4.17	22.54	0.27	0.35	2.71	11.00	16.57
6	-	4.41	3002.	8.13	17.32	37.45	0.00	3.49	5.54	34.81	0.22	0.74	2.88	25.23	17.48
7	-	4.74	3337.	8.21	22.90	47.99	0.00	3.09	3.80	42.47	0.29	0.80	3.24	32.19	13.68
8	-	2.87	1942.	8.02	10.44	24.03	0.00	3.83	4.47	21.27	0.38	0.25	4.08	13.14	12.42
9	-	2.71	1878.	7.82	8.31	20.45	0.00	2.55	7.51	18.43	0.24	0.84	5.28	11.03	12.38
10	-	2.67	1839.	7.70	7.24	18.75	0.00	3.48	7.37	17.04	0.20	0.00	6.33	8.74	13.21
11	-	3.29	2349.	7.55	9.70	21.58	0.00	4.03	7.49	23.28	0.68	0.00	2.91	22.41	9.94
12	-	3.41	2403.	7.65	12.35	28.43	0.00	3.77	5.18	24.14	0.57	0.00	4.24	19.44	12.04
1984	-	3.24	2195.	7.95	11.03	25.26	0.00	3.78	5.69	24.00	0.39	0.25	3.65	15.28	14.66

LOCATION : WU05 DUSHUDI PS YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION: $Q=Q_0+B \cdot H$
 Q - DISCHARGE IN M³ PER SECOND
 Q0 = 10.320 - DISCHARGE IN M³ PER SECOND AT ZERO SUCTION HEAD
 B = -2.010 - SLOPE OF CAPACITY CURVE
 H - SUCTION HEAD IN M
 QCAP = 5.737 - AVERAGE PUMP CAPACITY IN M³ PER SECOND
 HAV = 2.280 - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 17 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	18.83	5.01	3074.	7.97	13.83	33.90	0.00	4.34	9.35	34.20	0.54	0.04	4.49	9.57	34.24
2	17.10	4.94	3101.	8.03	14.95	37.34	0.00	5.88	6.63	34.95	0.84	0.03	5.54	9.05	35.39
3	23.79	4.68	2894.	8.23	13.25	30.92	0.00	4.21	6.73	33.70	0.54	0.08	3.54	10.21	33.39
4	22.89	9.70	3599.	7.45	11.72	24.74	0.00	7.31	13.53	37.83	0.92	0.03	2.40	14.73	40.44
5	22.32	4.18	2830.	7.99	13.29	28.82	0.00	4.04	6.56	30.40	0.30	0.00	2.89	8.75	29.87
6	25.89	3.88	2370.	8.13	14.64	30.68	0.00	3.31	5.04	29.94	0.21	0.82	2.71	9.08	26.48
7	30.01	3.91	2506.	7.88	13.02	30.07	0.00	4.77	8.44	29.42	0.38	0.52	3.47	12.05	23.93
8	35.32	3.33	2141.	7.68	9.22	23.04	0.00	5.36	6.25	22.22	0.51	0.57	4.44	9.14	19.95
9	33.09	4.95	3112.	7.57	12.97	34.09	0.00	4.10	10.82	35.42	0.38	0.53	5.90	10.19	34.04
10	33.06	5.43	3555.	7.51	12.14	32.75	0.00	5.85	13.57	37.83	0.87	0.12	4.18	12.15	39.67
11	27.04	4.81	3399.	7.72	12.17	28.45	0.00	5.84	10.65	34.94	1.08	0.00	3.10	29.04	20.39
12	23.23	6.19	4289.	7.61	13.93	38.67	0.00	7.62	13.87	45.33	1.33	0.00	4.48	28.60	34.77
1984	312.61	4.67	3019.	7.70	12.54	30.88	0.00	5.33	9.05	33.48	0.64	0.32	4.19	13.44	30.69

LOCATION : WU09 MAX PB YEAR : 1984 CODE : 11
 MEASUREMENT POINT CODE: 11 ; PUMP STATION ; BASIC DATA: PUMPING HOURS AND LIFTING HEAD

DISCHARGE RELATION:

Q UNITS: Q = 15.320 - 1.600 * H; GCAP = 10.120; HAV = 3.25
 Q UNITS: Q = 16.800 - 1.600 * H; GCAP = 11.600; HAV = 3.25
 Q - DISCHARGE IN M³ PER SECOND
 H - SUCTION HEAD IN M
 GCAP - AVERAGE PUMP UNIT CAPACITY IN M³ PER SECOND
 HAV - AVERAGE LIFTING HEAD IN M

THE WATER QUALITY DATA DURING 1984 ARE BASED ON 16 WATER SAMPLES

MONTH	DISCH MIL M3	EC	TDS	PH	BAR	ADJ BAR	RSC	CA	MG	NA	K	CO3	HCO3	SO4	CL
1	218.49	8.26	8083.	8.61	14.73	39.12	0.00	10.21	18.45	55.77	0.97	0.39	4.34	15.94	64.74
2	114.02	11.67	7299.	8.46	20.21	54.41	0.00	12.66	22.78	85.09	1.75	0.39	5.77	21.22	94.92
3	178.11	8.07	4990.	8.37	19.47	46.20	0.00	9.91	10.18	61.72	0.93	0.13	3.13	16.11	63.35
4	166.24	9.68	6170.	7.83	21.15	51.29	0.00	8.87	14.83	78.81	0.87	0.05	3.20	24.18	74.95
5	182.39	8.19	8314.	8.25	23.05	54.14	0.00	8.87	11.51	67.95	0.53	0.00	3.50	27.31	55.06
6	170.33	7.76	4999.	8.41	25.59	53.16	0.00	8.78	7.66	66.34	0.41	0.33	2.04	28.53	49.30
7	183.21	8.38	5292.	8.14	23.27	54.80	0.00	7.40	10.04	68.71	0.74	0.89	2.66	21.59	61.77
8	209.18	7.44	4722.	7.97	19.40	48.84	0.00	5.41	12.67	58.32	1.30	1.02	3.78	18.02	54.89
9	213.41	7.78	8049.	7.78	18.96	51.00	0.00	4.95	15.75	61.00	0.73	0.42	4.11	19.93	56.07
10	226.23	7.32	4799.	7.72	15.69	42.80	0.00	6.77	16.64	53.69	1.05	0.00	6.36	20.23	51.60
11	211.19	8.10	4453.	7.45	14.52	33.92	0.00	5.96	14.54	44.51	1.28	0.00	2.83	43.42	22.06
12	243.96	8.25	5817.	7.49	17.92	49.50	0.00	7.20	18.42	64.14	1.93	0.00	4.02	43.59	44.08
1984	2316.78	8.00	5248.	7.85	18.83	47.56	0.00	7.36	14.60	62.41	1.05	0.29	4.00	25.46	55.68

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الصرف ثم يجرى تصحيح لهذه القياسات بناءً على قياسات كفاءة تلك المحطات بصفة دورية - وهذا هو أحد أوجه نشاط المشروع إعادة استخدام مياه الصرف .. وذلك بالنسبة للمصارف التي يتم رفع مياهها بواسطة محطات الضخ .

أما المصارف التي يتم صرف مياهها بالراحة فإنه يجرى قياس تصرفاتها بالطرق المناسبة التي تخضع لاعتبارات أخرى .

أما دراسة نوعية مياه الصرف فإنه يتم تجميع عينات المياه من مناطق القياس المختلفة - بصفة دورية - ويجرى تحليلها كيميائياً وتحليل نتائجها وفقاً للمواصفات القياسية لنوعية المياه .

والغرض الأساسي في هذا التقرير السنوي هو عرض لهذه البيانات الأساسية والمتاحة لدى معهد بحوث الصرف لاستخدامها ضمن المشروعات المختلفة - هذا إلى جانب عرض مبسط عن وسائل القياس وطرق الحساب المستخدمة لإخراج هذه البيانات في صورتها المذكورة ضمن هذا التقرير - كذلك فإنه جدير بالذكر أن ما يتعلق بنوعية مياه الصرف ومدى ملائمتها للاستخدام في الري فقد استخدم الأسس والمعايير والتي من خلالها يمكن توصيف وتصنيف هذه المياه حسب الأغراض المختلفة (كاستخدامها مباشرة في أغراض السرى أو بعد خلطها مع نوعية مياه أخرى .. الخ) .

وفي حالة عدم كفاية البيانات المذكورة ضمن هذا التقرير فإنه يُمنح باستشارة بنك المعلومات بمعهد بحوث الصرف حيث تتوفر كافة نتائج التحليل الكيميائي للعينات الممثلة لكل موقع .

أن الزيادة المتطردة في اعداد السكان لابد من
مجابتها بانتاج المزيد من الحبوب والالياف - من جهته
- واستصلاح اراضى جديدة بدلا من تلك التى استنزفت فى عمليات
البناء والتشييد من جهة أخرى .

ولقد كانت استراتيجية اعادة استخدام مياه الصرف
أمرا واردا - ضمن الاستراتيجيات المقترحة لايجاد مصادر مياه
رى إضافية للاراضى التى سيتم استصلاحها .. وفى هذا المجال
يجدر بنا ان نذكر ان الخطة الخمسية ١٩٨٢ - ١٩٨٧ تتضمن
استصلاح (٦٤٠ ٠٠٠) فدان والبدا الفعلى فى التنفيذ .

ويهدف مشروع اعادة استخدام مياه الصرف الى ايجاد
البيانات الاساسية على درجة عالية من الدقة والواقعية
والتي يمكن استخدامها فى تلك الخطة السالفة الذكر - لذلك
فقد تم اختيار شبكة قياس متكاملة والتي من خلالها يمكن الحصول
على تلك البيانات الممثلة لكل زمام من مناطق الصرف .

ان البيانات اللازمة لخطط استصلاح الاراضى متمثلة فى
كل من كميات المياه المتاحة ونوعية تلك المياه ومعدى
ملاحياتها ومناسبتها لعمليات الاستصلاح والرى .. لذلك فان
كميات مياه الصرف يتم الحصول عليها أولا من خلال قياسات
مطلحة الميكانيكا والكهرباء بوزارة الري لتصرفات محطات

- ٣ - المهندس / احمد محمد مرسى
- ٤ - المهندس / عادل عبد الرشيد سليمان
- ٥ - المهندس / محمد عزت حسن
- ٦ - المهندس / محمد ابراهيم لاشيخ
- ٧ - المهندس / مجدى عبد النبى
- ٨ - المهندس / نبيل فتحى قنديل
- ٩ - المهندس / محمد سعد عباس
- ١٠ - المهندس / ميرفت محمد مطفى الجندى
- ١١ - المهندسة / أميمة سعد شاهين
- ١٢ - المهندسة / سنية محمد عباس

فريق المعمل والقائمين بالتحليل الكيماوى :

- ١ - المهندسة / لىلى محمد حسن السيسى
- ٢ - المهندسة / عطيات أبو بكر
- ٣ - المهندس / جمال عبد الناصر كامىل
- ٤ - المهندسة / سميرة سيد محروس
- ٥ - المهندسة / نصره عبد الله

مقدمة :-

يهدف هذا التقرير الى القاء الضوء والملاحظات على البيانات المتاحة حتى يمكن الاستعانة بها في وضع خطط وبرامج اعادة استخدام مياه الصرف في دلتا نهر النيل ، كما يهدف أيضا الى ابراز النواحي الفنية الممكنة في إيجاد تلك الوسائل .

الفريق البحثي للمشروع -

مدير المشروع :

د م / محمد محمود جاسر

د / ب . أ . ريتما

رئيس الشعبة :

د / سامية محمود سعد الدين الجنيدى

د م / ضياء الدين احمد حسين القوصى

الخبراء الهولنديين المقيمين :

المستمر / ديتمر بولستر

المستمر / مارين ماكنست

المستمر / هاندرىك بانتزدورب

المستمر / روبرت سميت

الفريق المصرى للمشروع :

١ - الدكتور / محمد احمد عبد الخالق

٢ - الدكتورة / شادين عبد الجواد

مشروع اعاده استخدام مياه الصرف نشاط مشترك بين : -
معهد بحوث المـــــــــــــــــــــرف - الجيزه - جمهوريه مصر العربيه
ومعهد بحوث اداره الاراض والمياه - فاجنجن - هولندا
وتعتبر الجهه المموله للمشروع وزاره الري بجمهوريه مصر العربيه
ووزاره العلاقات الخارجيه بهولندا فى اطار البرنامج المشترك للتعاون الفنى
بين مصر وهولندا .

ويعمل المجلس الاستشارى المصرى الهولندى كهيئة مشرفة .
نتائج الدراسات التى تمت خلال هذا المشروع ستعرض اما فى تقارير مبدئيه
او تقارير نهائيه . حيث ان محتويات التقارير المبدئيه ممكن تختلف بشدة
من تقديم مبسط للبيانات او مناقشات لنتائج وخلصات بحثيه .
الاراء والتوصيات الموجوده فى التقارير السابقه تعتبر اراء . للمؤلف فقط
وليس لها علاقه بالمعاهد اوالوزارات المعنية .

مشروع اعادة استخدام مياه الصرف

تقرير رقم ١٣

الكتاب السنوى

الدلتا النيل ١٩٨٤

التصرفات والتحاليل الكيماويه لمياه الصرف

الفريق البحثى

١٩٨٦

معهد بحوث الصرف مركز البحوث المائية ج.م.ع.

معهد بحوث ادارة الاراضى والمياه

واخنجن، هولندا

بسم الله الرحمن الرحيم
"وجعلنا من الماء كل شى حى"
صدق الله العظيم