

4.2.4 Pumping Tests

(1) Test Method

Pumping test was carried out after installation of casing pipes and screens and it comprises three (3) types of test; viz. step-drawdown test, continuous drawdown test, and recovery test. The step drawdown test was conducted prior to continuous pumping test. Five (5) steps with pumping duration of ninety (90) minutes for each step were conducted in each step-drawdown test. The duration of continuous pumping test was forty eight (48) hours. The recovery test was started just after continuous pumping test for the duration of twelve (12) hours.

At R082G, R162G and R055G, however, pumping test could not be carried out perfectly due to shortage of discharge.

During the pumping test, water for water quality analysis was sampled and water level, pH, water temperature and EC were measured.

(2) Step-drawdown Test

The results of step-drawdown test at test wells are tabulated in Table 4.2.4.1. It is noted that step-drawdown tests could not be carried out at 171M (Khasak) and 214 M (Toul Pou) wells in Kg.Cham, because the wells were in artesian conditions. No.162G (Peareach) abandoned due to very small yield. Specific capacity value of each step was obtained from the test, then aquifer loss coefficient (B) and well loss coefficient (C) were computed. Well efficiency of each pumping step was also calculated. The graphical interpretations of step-drawdown test are presented in Figure 4.2.4.1-30

(3) Continuous Pumping Test and Recovery Test

The results of continuous pumping test and recovery test are summarized in Table 4.2.4.2. The values of transmissivity are obtained by Cooper-Jacob method and Recovery method. The values of storativity are obtained by Cooper-Jacob method. The graphical interpretation of continuous pumping test (Cooper-Jacob method) and recovery test (Recovery method) is presented in Figure 4.2.4.31-60.

(4) Transmissivity and Specific Capacity Relations

Figure 4.2.4.61 and 4.2.4.62 shows relations between transmissivity (T) and specific capacity (Sc) by analyzing methods, Cooper-Jacob Method and Recovery Method, respectively. The upper graph shows the linear plots, while the lower graph shows logarithmic plots. T-Sc relation can be presented in the followings.

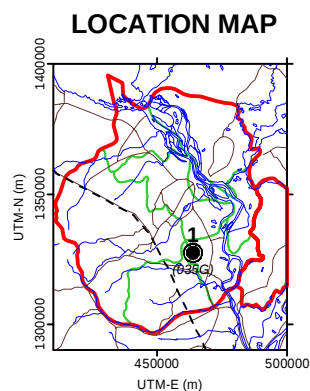
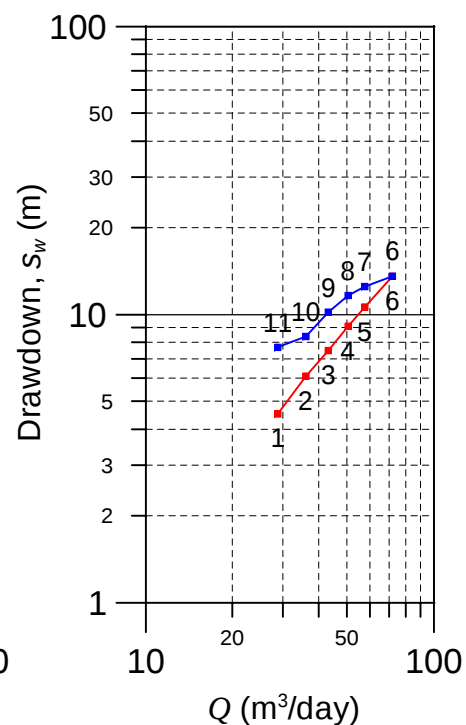
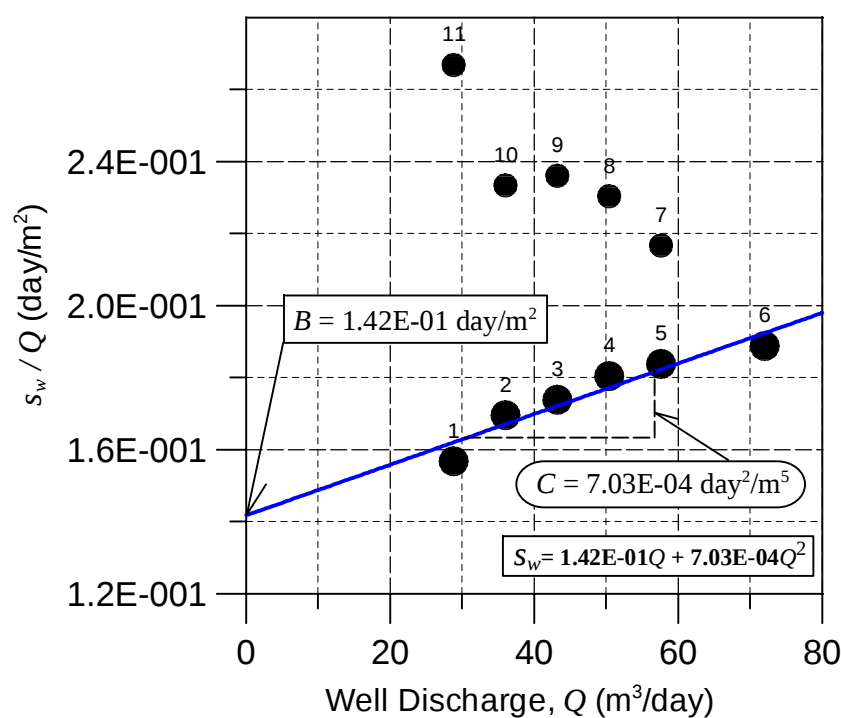
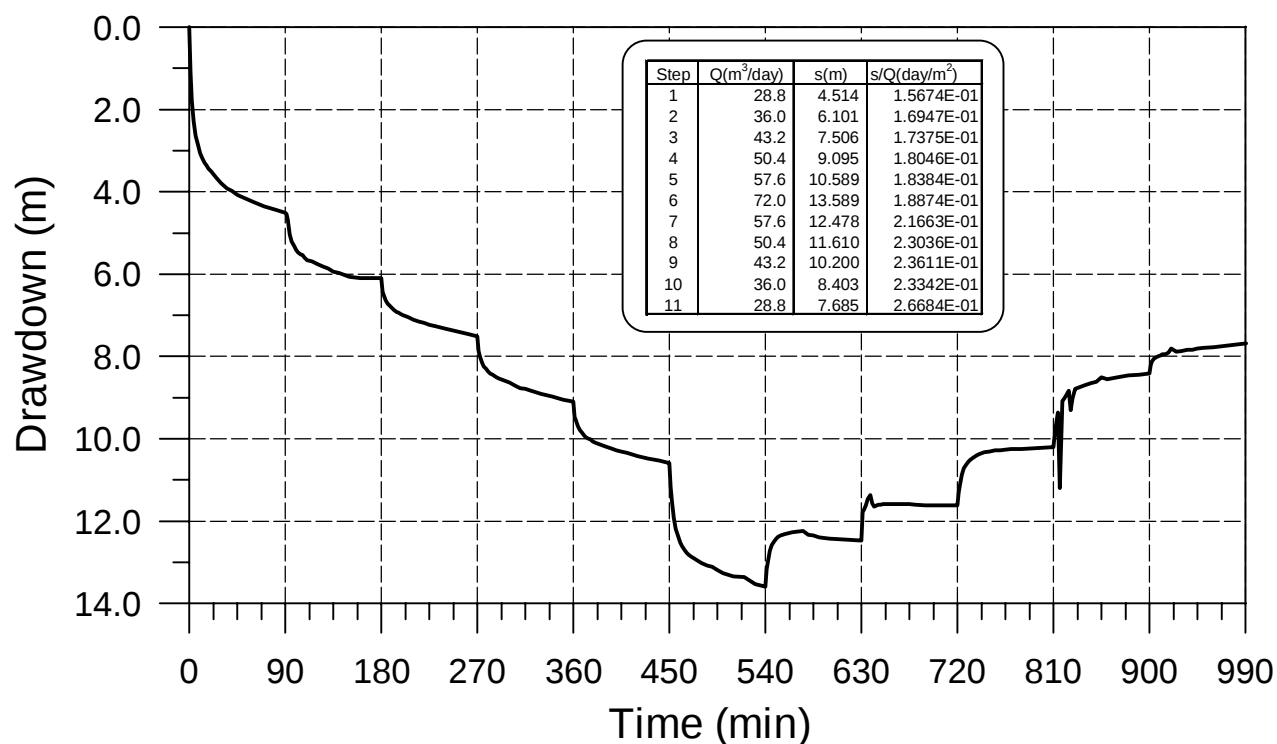
$$T = 1.99 Sc$$

or

$$T = 1.231 \cdot \ln(Sc) - 0.2320$$

T values of Kg.Chhnang Province ranges from 0.1 to 10 m²/day, on the other hand it ranges from 1 to 1,000 m²/day in Kg. Cham.

Figure 4.2.4.63 and 4.2.4.64 shows the distributions of T/Sc-Sc relations by province and by aquifer geology. The aquifer geology was identified from the result of test well drilling. Figure 4.2.4.63 of the logarithmic distribution of the transmissivity (Cooper-Jacob Method) to the specific capacity clearly shows difference in aquifer geology. The basement rock aquifer shows a wide range of transmissivity. It ranges from 0.2 to 200 m²/day. However, among three types of aquifer geology, the basement rock aquifer show relatively low transmissivity except the excellent fissure zone. Transmissivity of basalt aquifer ranges from 2 to 80 m²/day, while it ranges from 10 to 700 m²/day in Plio-Pleistocene aquifer. Figure 4.2.4.64 indicates basically same relations.



WELL LOCATION

Province: Kg. Chhnang
 District: Kg. Tralaach
 Commune: Chhuk Sa
 Village: Trapaeng Khtum
 Village No.: 035G

Long.-E(deg): 104.6663
 Lati.-N(deg): 12.0077
 UTM-E(m): 463678
 UTM-N(m): 1327429

WELL SPECIFICATION

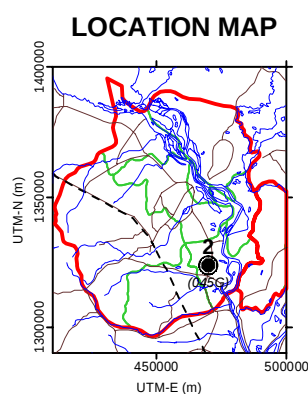
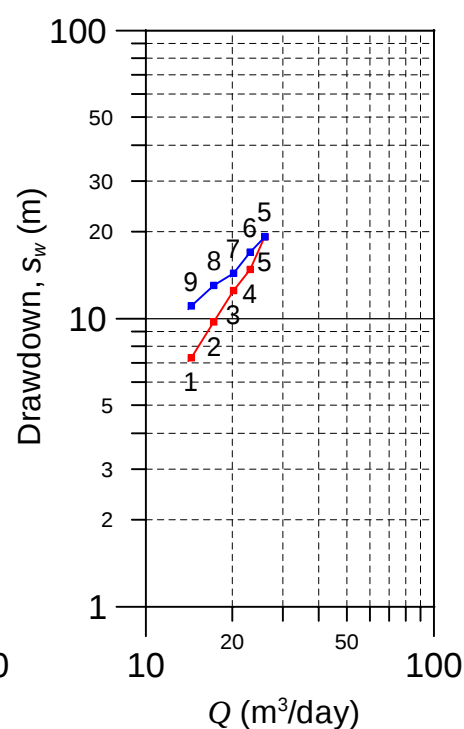
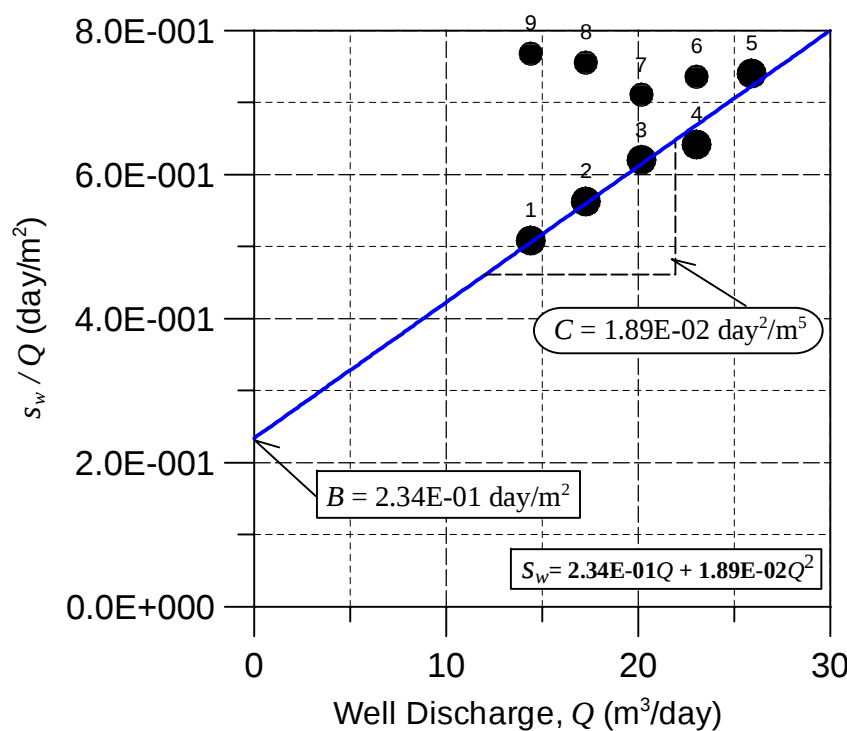
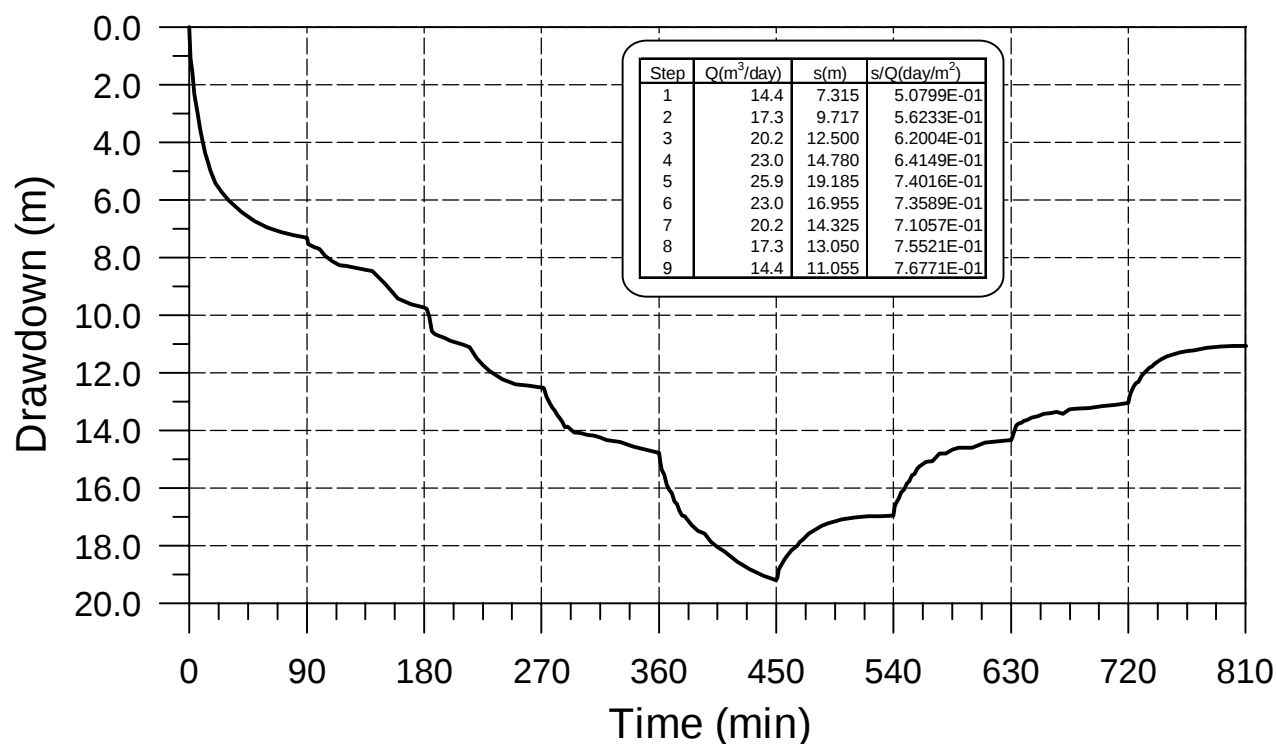
Drilled Depth: 51.0 m
 Well Depth: 47.0 m
 Screen Depth(s): 23.15 - 43.075 m
 Screen Length: 19.88 m
 Ground Elevation: 22 m

Figure 4.2.4.1

Results of Step-Drawdown Test at No.1 Test Well (Vil. No. 035G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang
 District: Kg. Tralaach
 Commune: Chrees
 Village: Prey Pis
 Village No.: 045G

Long.-E(deg): 104.7241
 Lat.-N(deg): 11.9743
 UTM-E(m): 469969
 UTM-N(m): 1323735

WELL SPECIFICATION

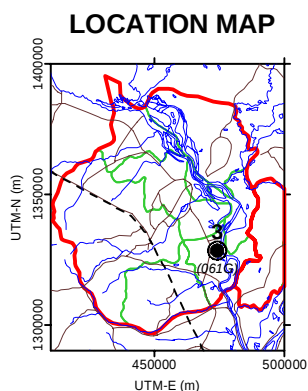
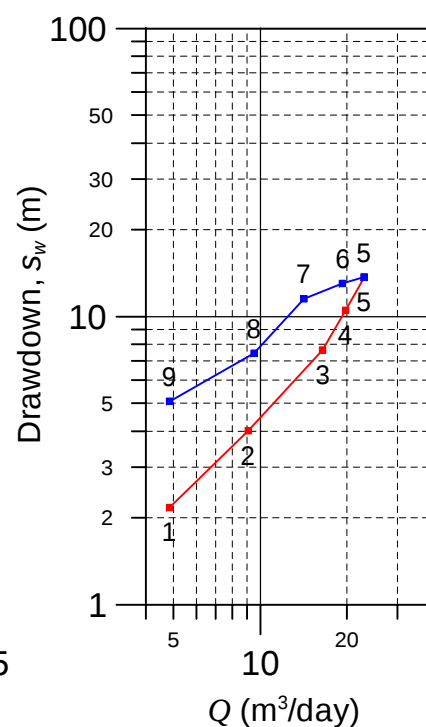
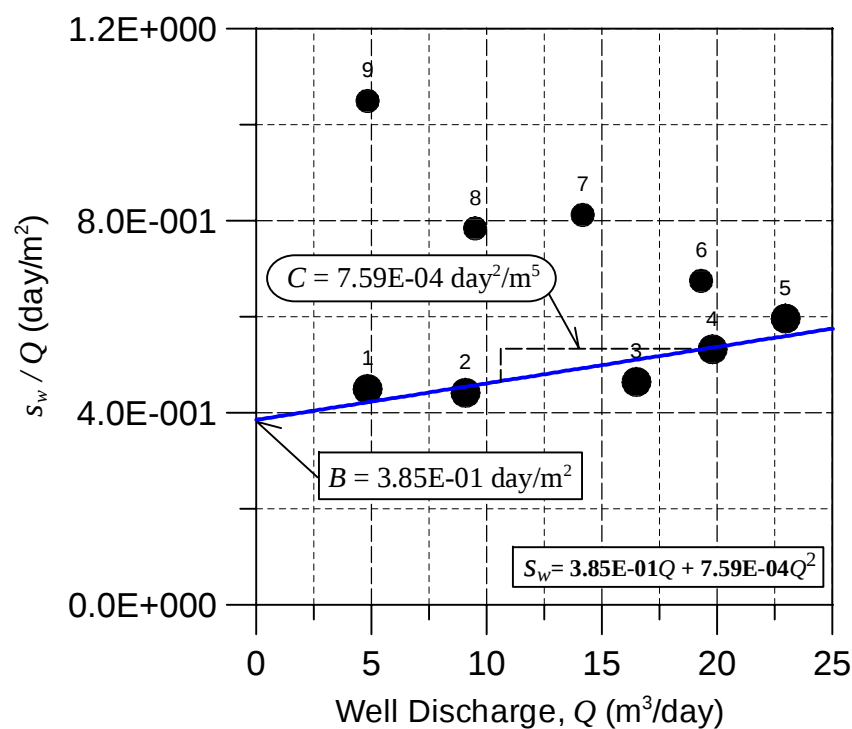
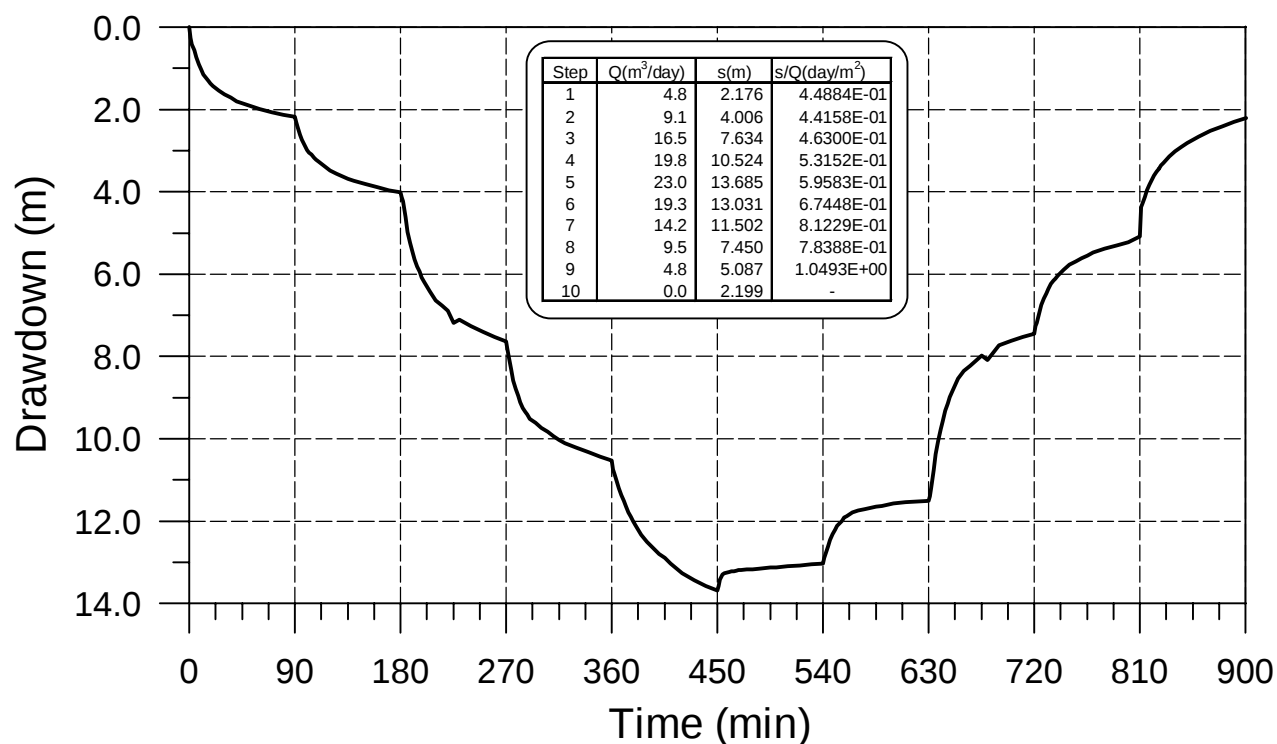
Drilled Depth: 67.0 m
 Well Depth: 36.0 m
 Screen Depth(s): 20.1 - 32.04 m
 Screen Length: 7.92 m
 Ground Elevation: 12 m

Figure 4.2.4.2

Results of Step-Drawdown Test at No.2 Test Well (Vil. No. 045G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang Long.-E(deg): 104.7579
 District: Kg. Tralaach Lat.-N(deg): 12.0161
 Commune: Taa Chees UTM-E(m): 473655
 Village: Sampoar UTM-N(m): 1328354
 Village No.: 061G

WELL SPECIFICATION

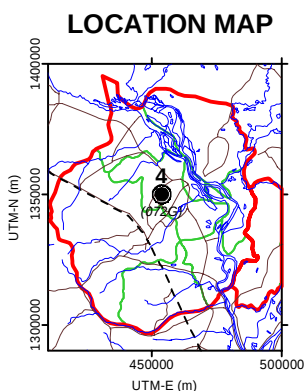
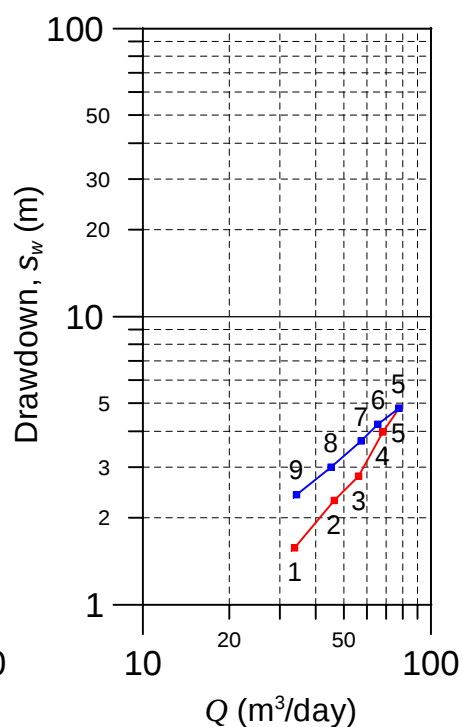
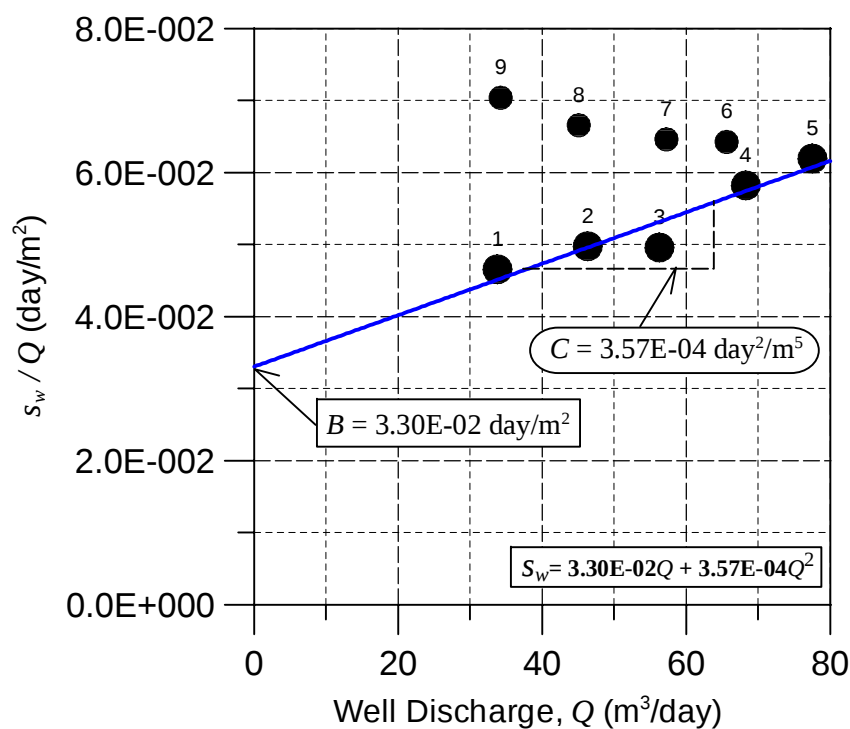
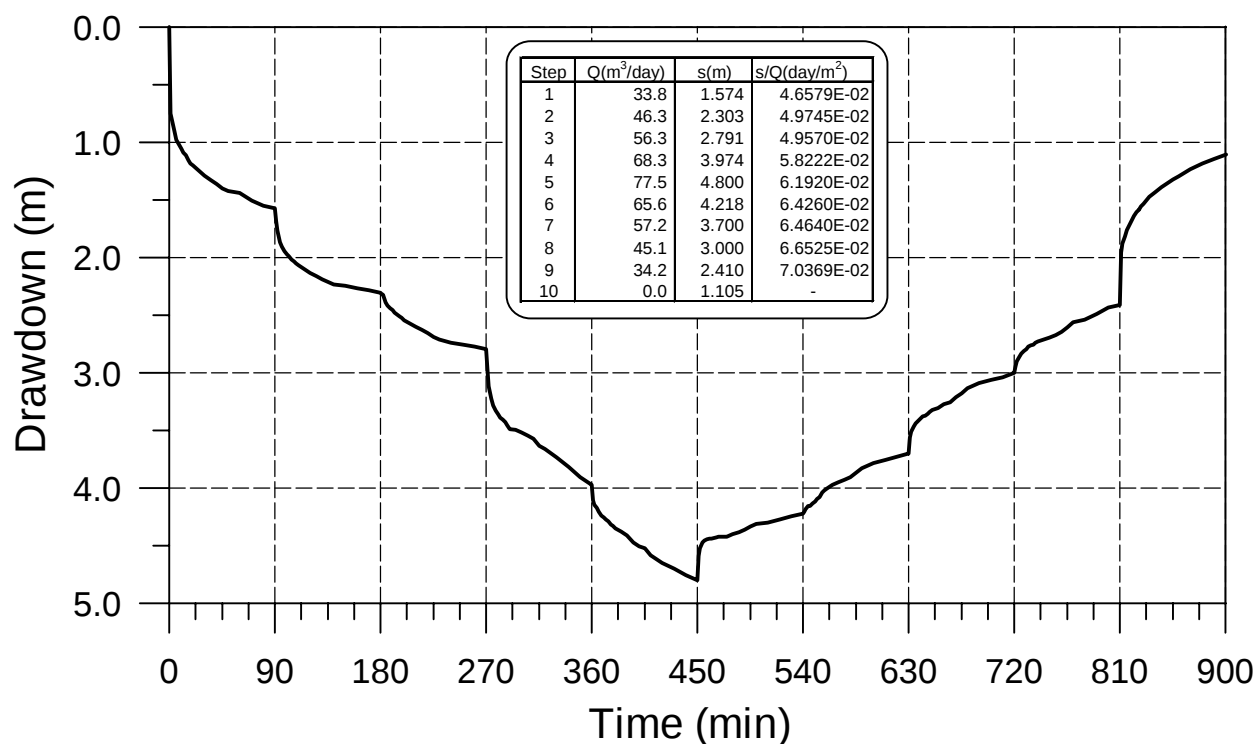
Drilled Depth: 65.0 m
 Well Depth: 52.0 m
 Screen Depth(s): 12.40 - 48.04 m
 Screen Length: 19.80 m
 Ground Elevation: 5 m

Figure 4.2.4.3

Results of Step-Drawdown Test at No.3 Test Well (Vil. No. 061G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang Long.-E(deg): 104.5750
 District: Rorea Bier Lati.-N(deg): 12.2120
 Commune: Krang Leav UTM-E(m): 453771
 Village: Tuek L'ak UTM-N(m): 1350033
 Village No.: 072G

WELL SPECIFICATION

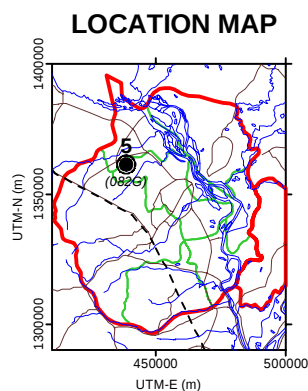
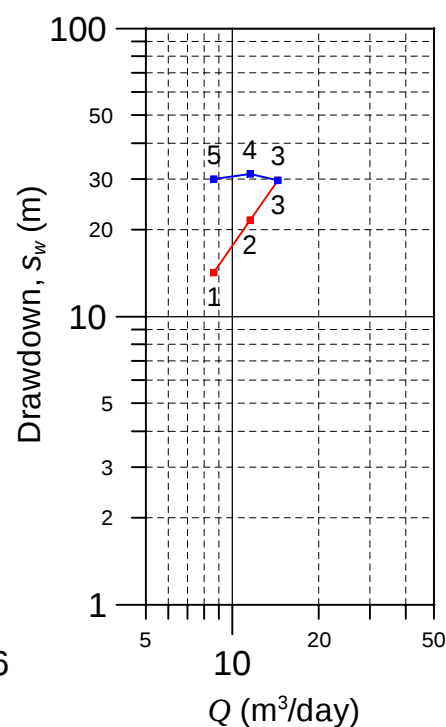
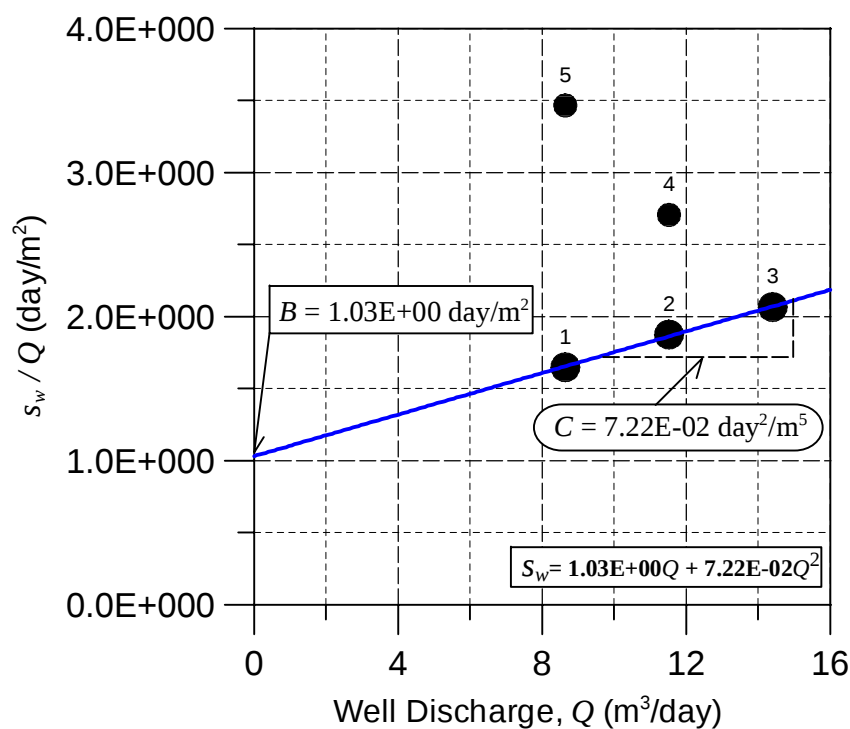
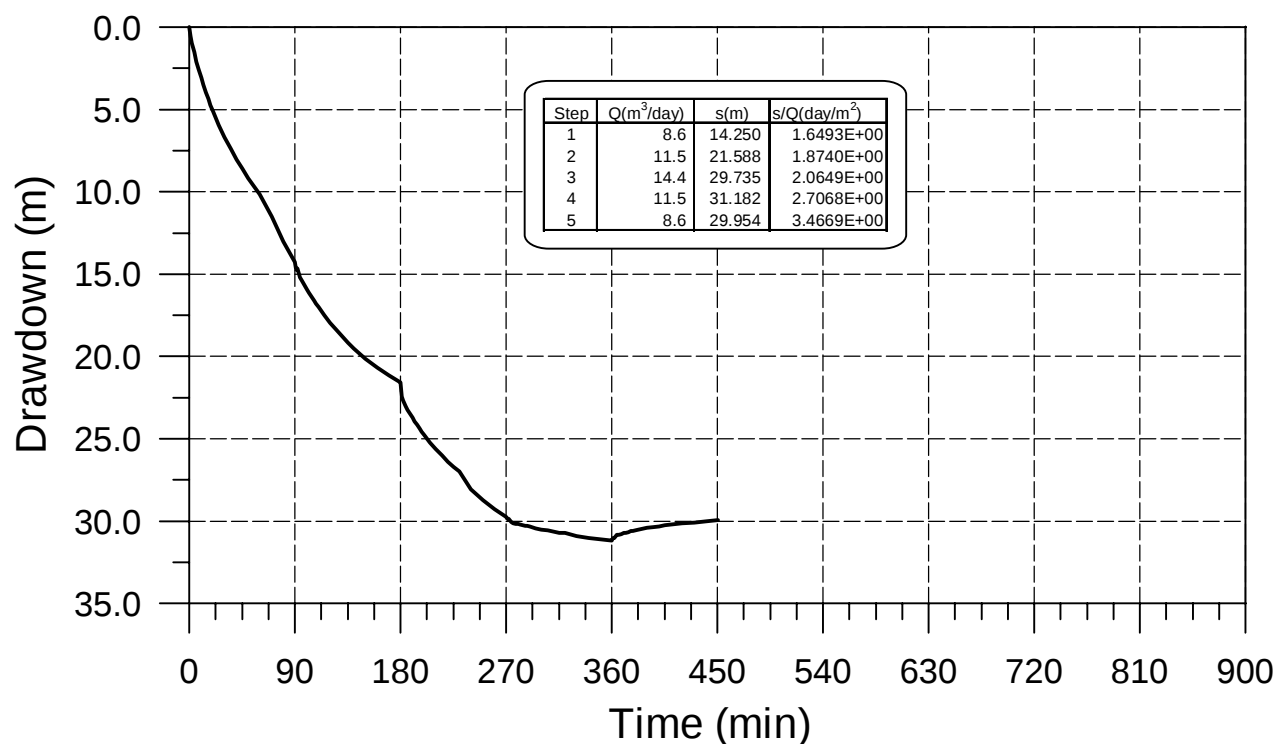
Drilled Depth: 23.0 m
 Well Depth: 22.0 m
 Screen Depth(s): 12.08 - 20.00 m
 Screen Length: 7.92 m
 Ground Elevation: 21 m

Figure 4.2.4.4

Results of Step-Drawdown Test at No.4 Test Well (Vil. No. 072G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang Long.-E(deg): 104.4351
 District: Rorea Bier Lati.-N(deg): 12.3142
 Commune: Prasneb UTM-E(m): 438577
 Village: Prasneb UTM-N(m): 1361365
 Village No.: 082G

WELL SPECIFICATION

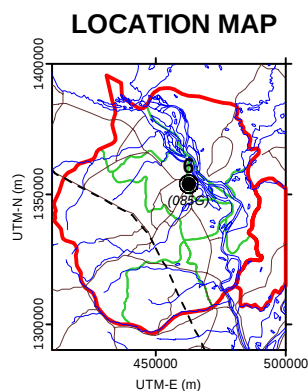
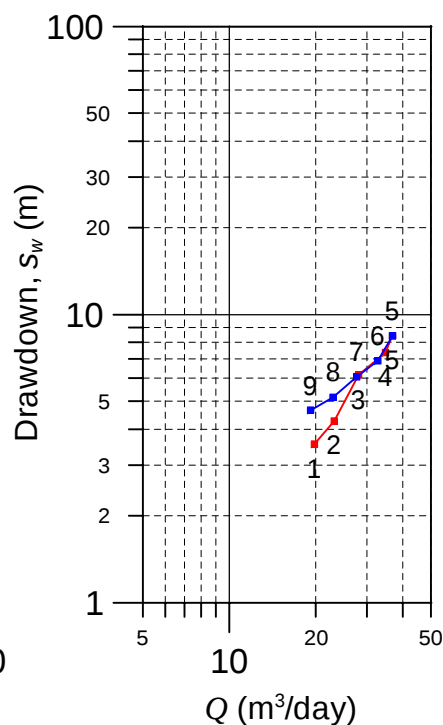
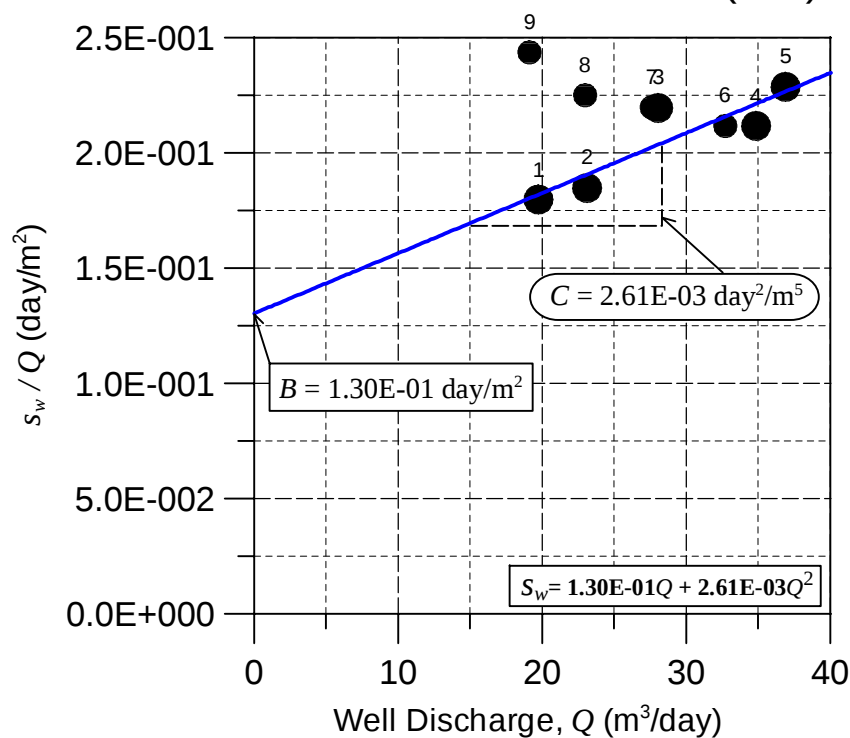
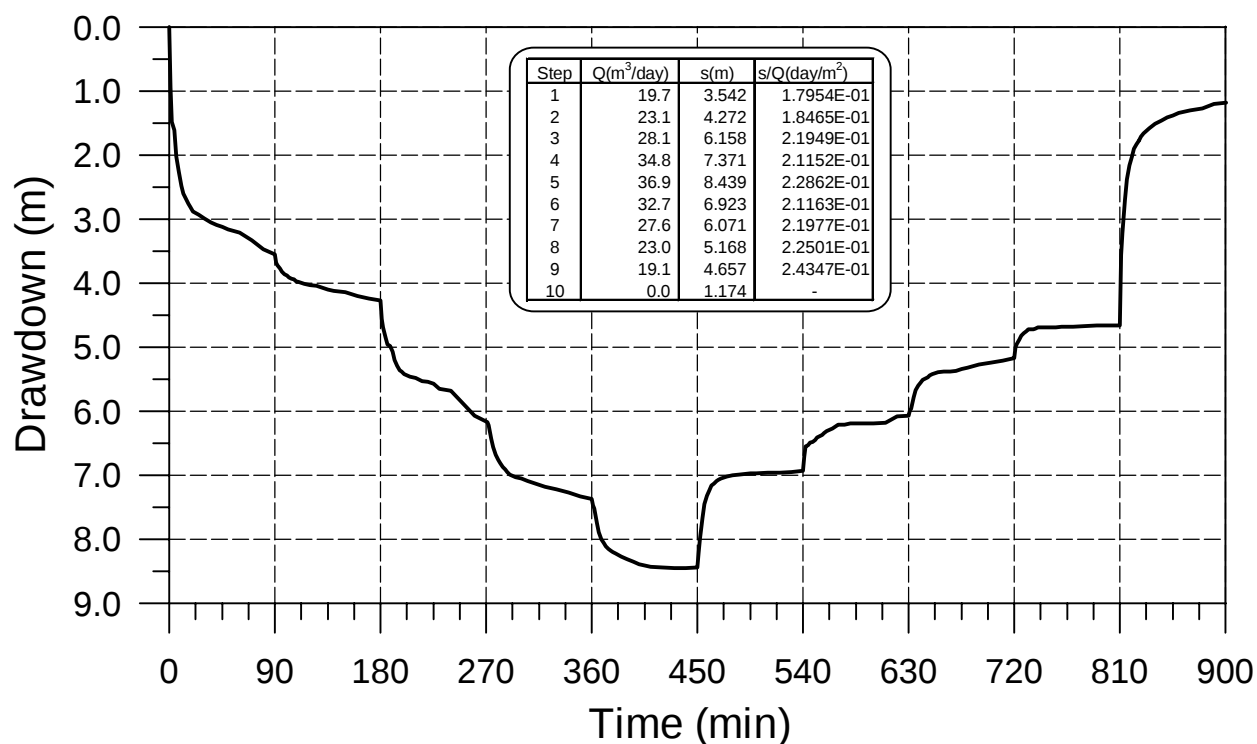
Drilled Depth: 68.0 m
 Well Depth: 62.0 m
 Screen Depth(s): 44.11 - 58.025 m
 Screen Length: 9.94 m
 Ground Elevation: 23 m

Figure 4.2.4.5

Results of Step-Drawdown Test at No.5 Test Well (Vil. No. 082G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang Long.-E(deg): 104.6566
 District: Rorea Bier Lati.-N(deg): 12.2471
 Commune: Srae Thmei UTM-E(m): 462652
 Village: Chamkar Ta Mau UTM-N(m): 1353901
 Village No.: 085G

WELL SPECIFICATION

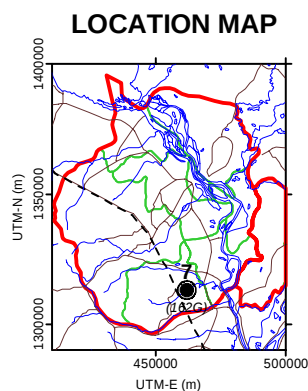
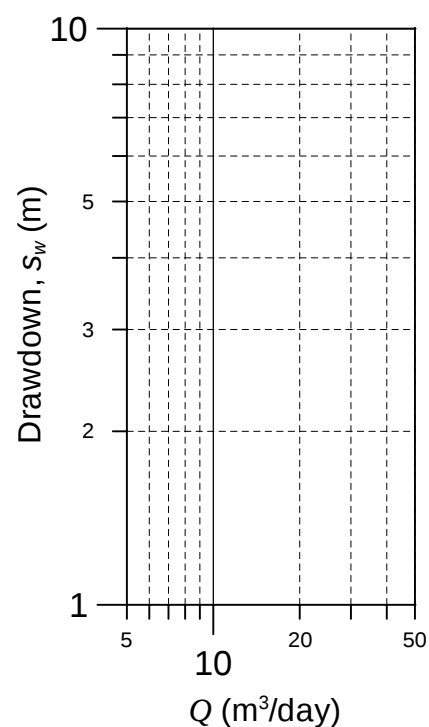
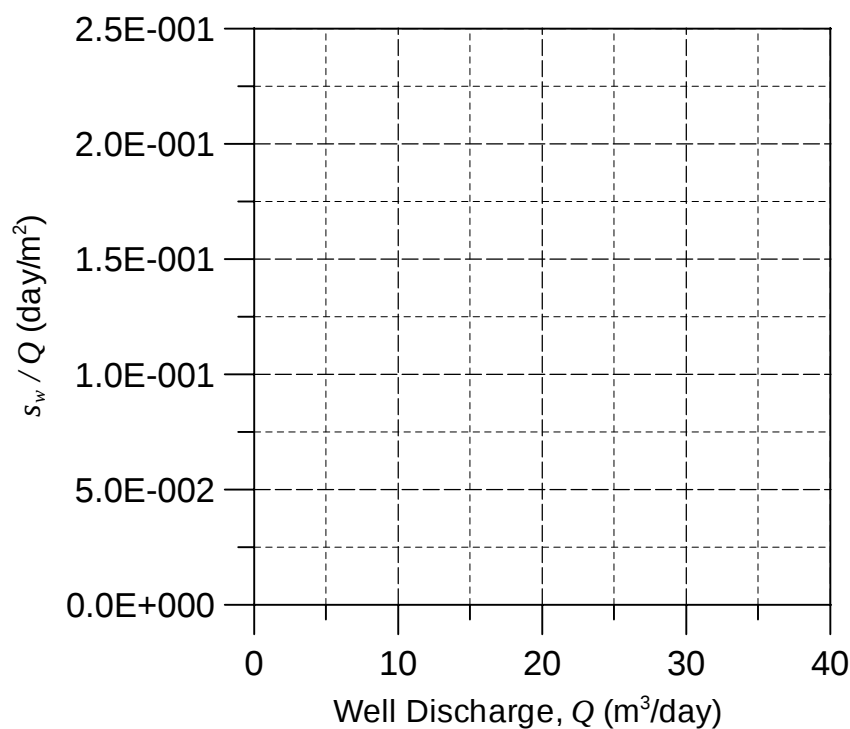
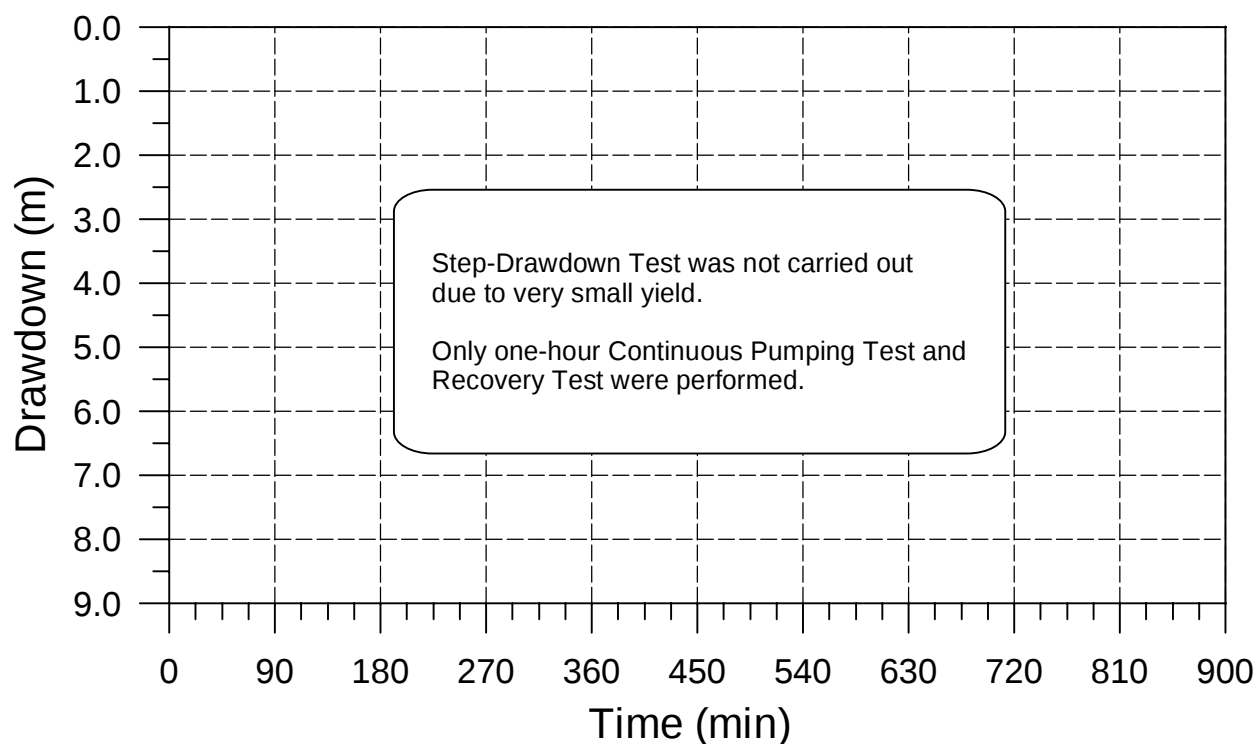
Drilled Depth: 33.0 m
 Well Depth: 24.0 m
 Screen Depth(s): 12.12 - 20.04 m
 Screen Length: 7.92 m
 Ground Elevation: 20 m

Figure 4.2.4.6

Results of Step-Drawdown Test at No.6 Test Well (Vil. No. 085G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang
 District: Saamakki Mean Chey
 Commune: Seedthei
 Village: Peareach
 Village No.: 162G

Long.-E(deg): 104.6500
 Lat.-N(deg): 11.8785
 UTM-E(m): 461892
 UTM-N(m): 1313147

WELL SPECIFICATION

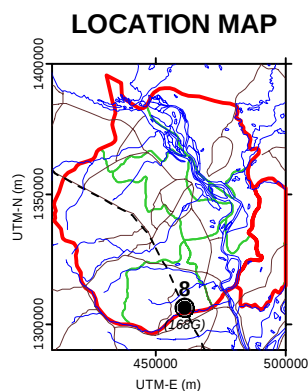
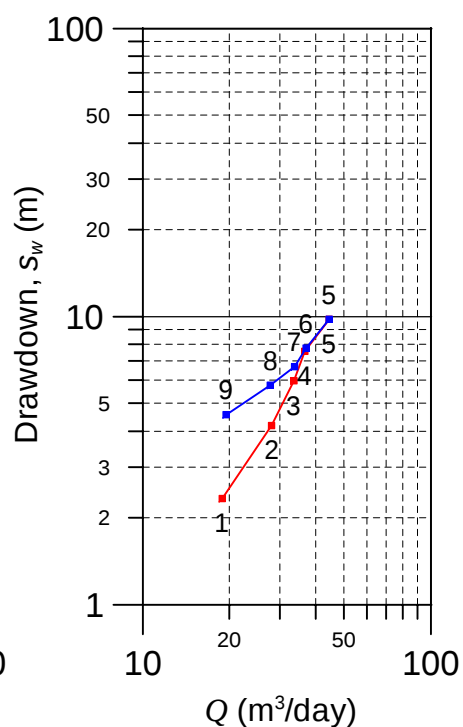
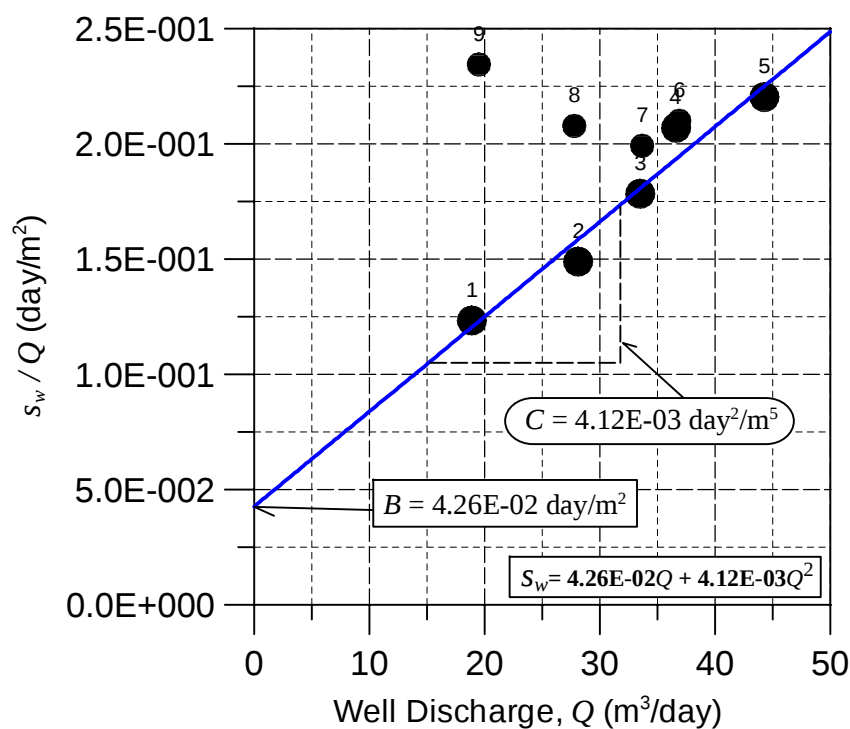
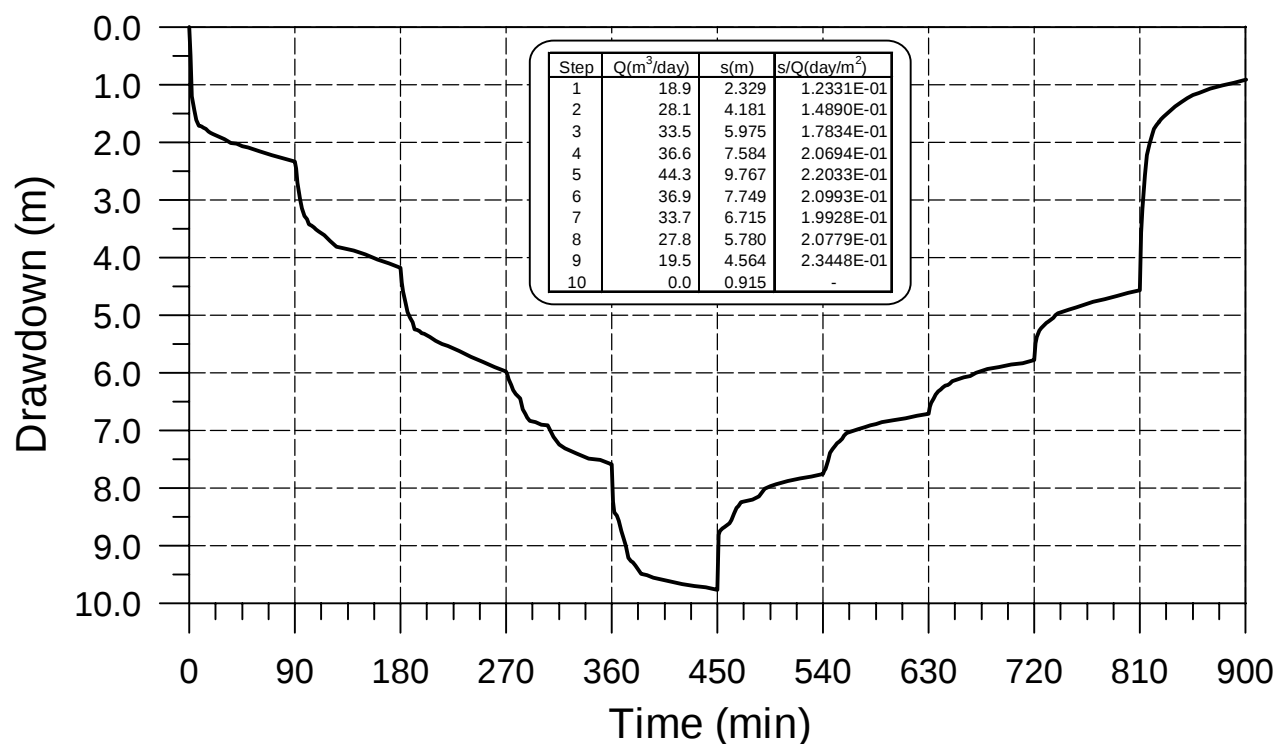
Drilled Depth: 85.6 m
 Well Depth: 64.0 m
 Screen Depth(s): 30.30 - 60.00 m
 Screen Length: 17.82 m
 Ground Elevation: 18 m

Figure 4.2.4.7

Results of Step-Drawdown Test at No.7 Test Well (Vil. No. 162G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang
 District: Saamakki Mean Chey
 Commune: Tbaeng Khops
 Village: Tbaeng Khops
 Village No.: 168G

Long.-E(deg): 104.6422
 Lat.-N(deg): 11.8172
 UTM-E(m): 461026
 UTM-N(m): 1306360

WELL SPECIFICATION

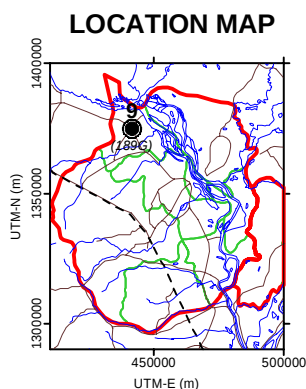
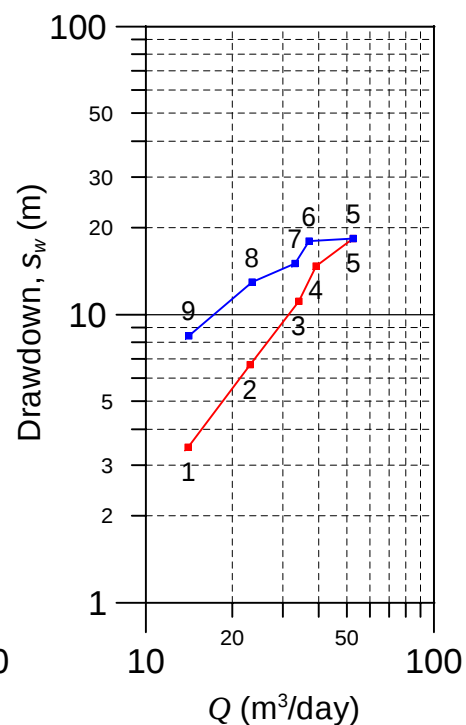
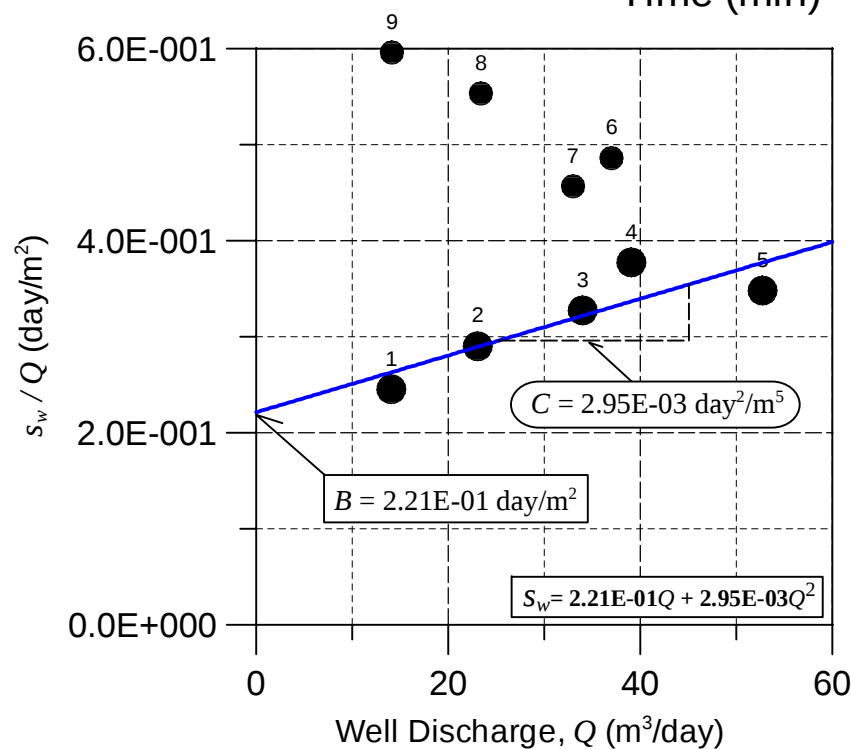
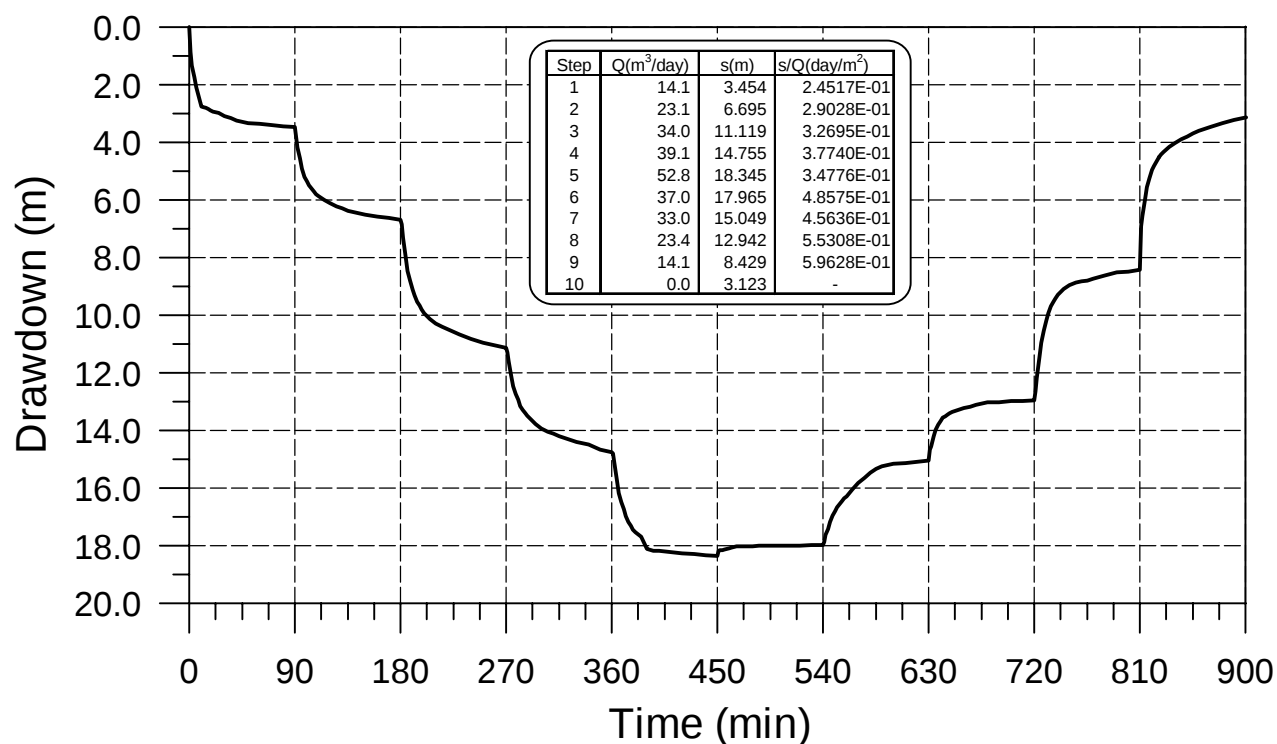
Drilled Depth: 41.0 m
 Well Depth: 34.5 m
 Screen Depth(s): 14.20 - 30.04 m
 Screen Length: 15.84 m
 Ground Elevation: 22 m

Figure 4.2.4.8

Results of Step-Drawdown Test at No.8 Test Well (Vil. No. 168G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang
 District: Baribour
 Commune: Ponley
 Village: Ponley
 Village No.: 189G

Long.-E(deg): 104.4625
 Lati.-N(deg): 12.4363
 UTM-E(m): 441584
 UTM-N(m): 1374863

WELL SPECIFICATION

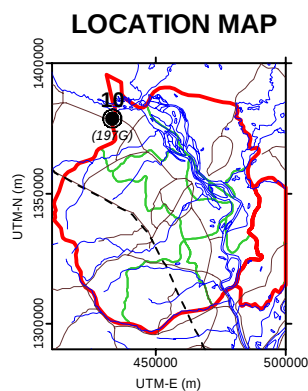
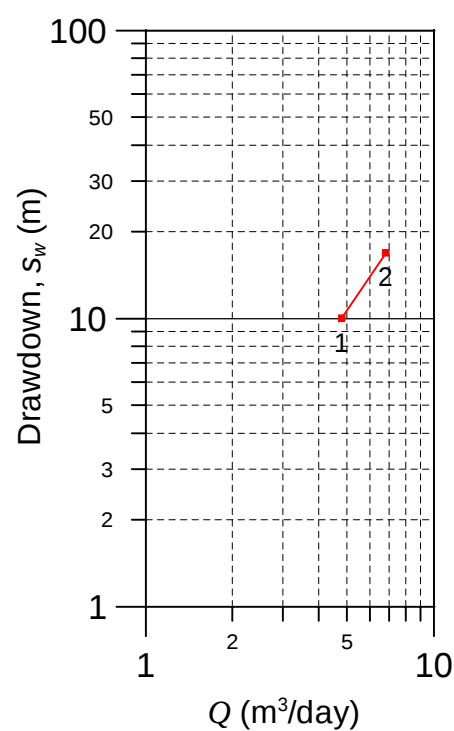
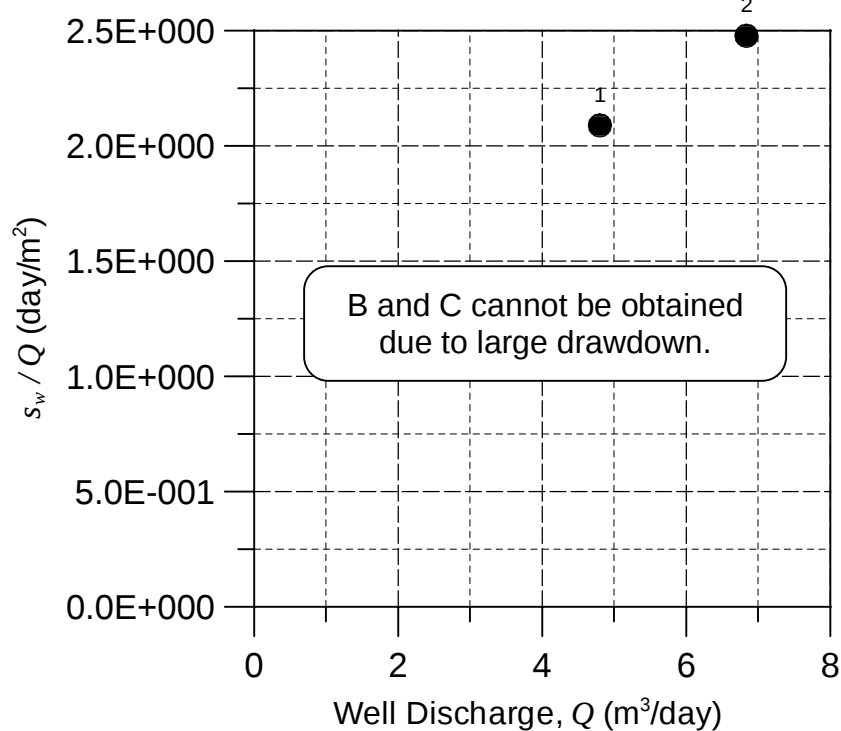
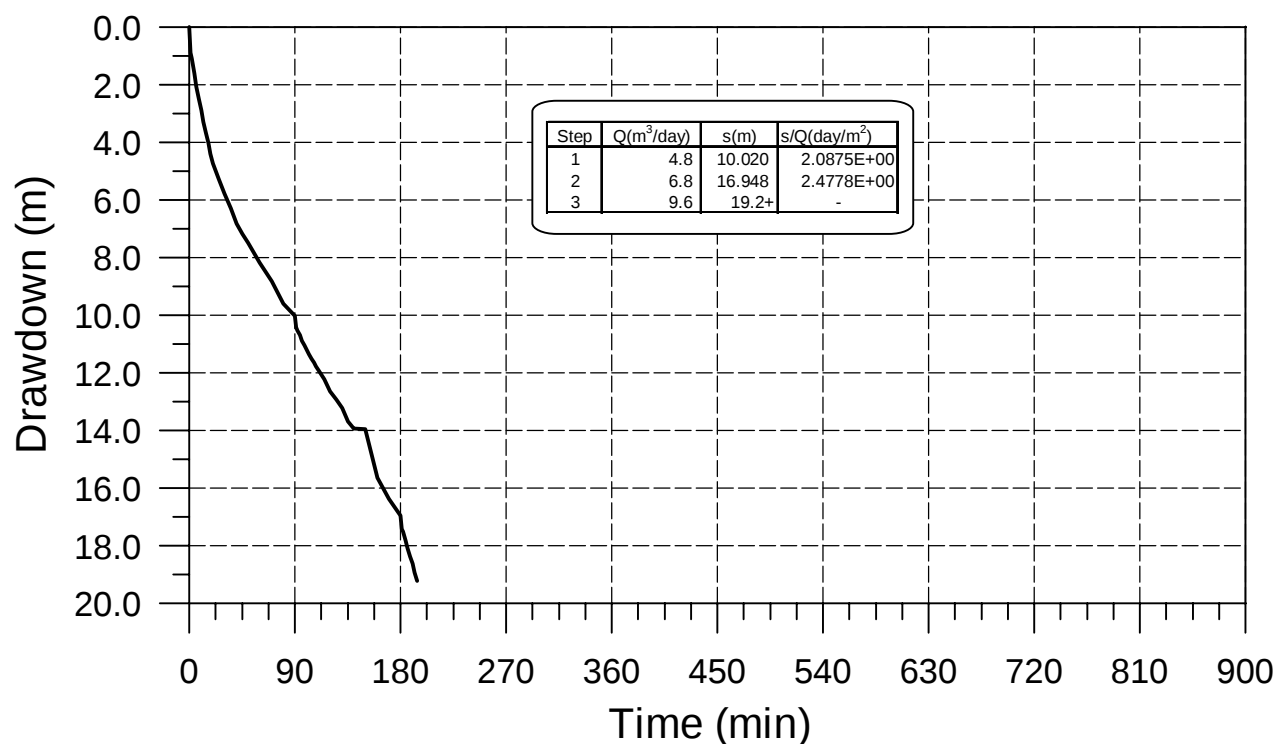
Drilled Depth: 38.0 m
 Well Depth: 38.0 m
 Screen Depth(s): 24.12 - 36.00 m
 Screen Length: 11.88 m
 Ground Elevation: 14 m

Figure 4.2.4.9

Results of Step-Drawdown Test at No.9 Test Well (Vil. No. 189G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



WELL LOCATION

Province: Kg. Chhnang
 District: Baribour
 Commune: Trapeang Chan
 Village: Kbal Damrei
 Village No.: 197G

Long.-E(deg): 104.3857
 Lat.-N(deg): 12.4716
 UTM-E(m): 433243
 UTM-N(m): 1378777

WELL SPECIFICATION

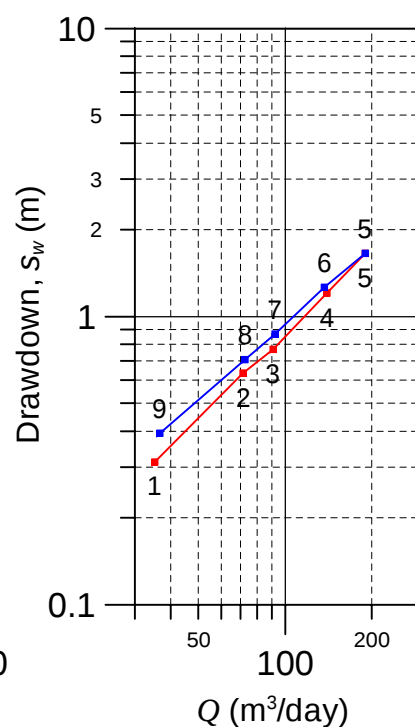
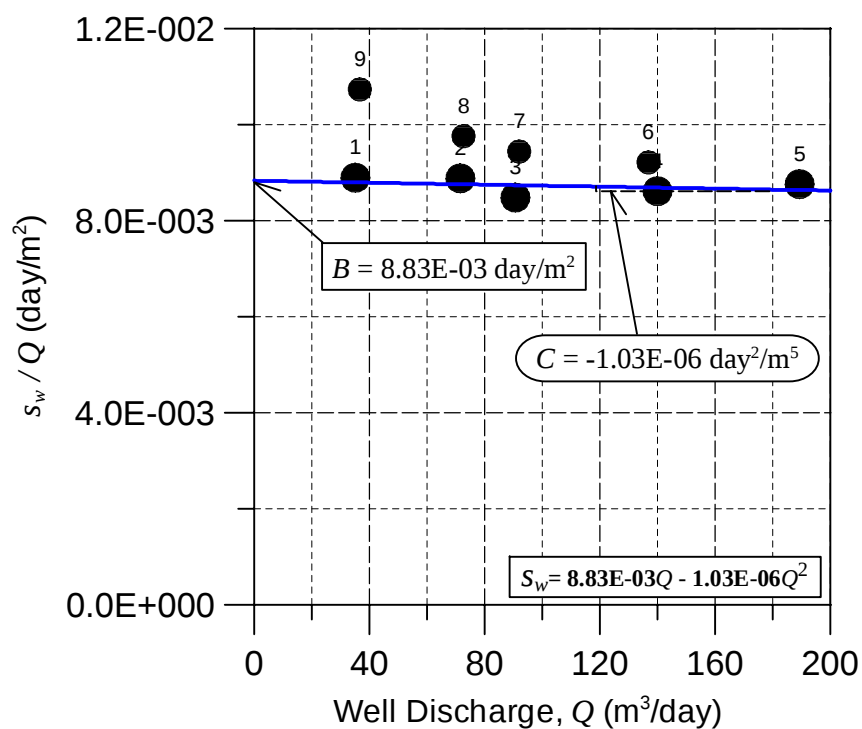
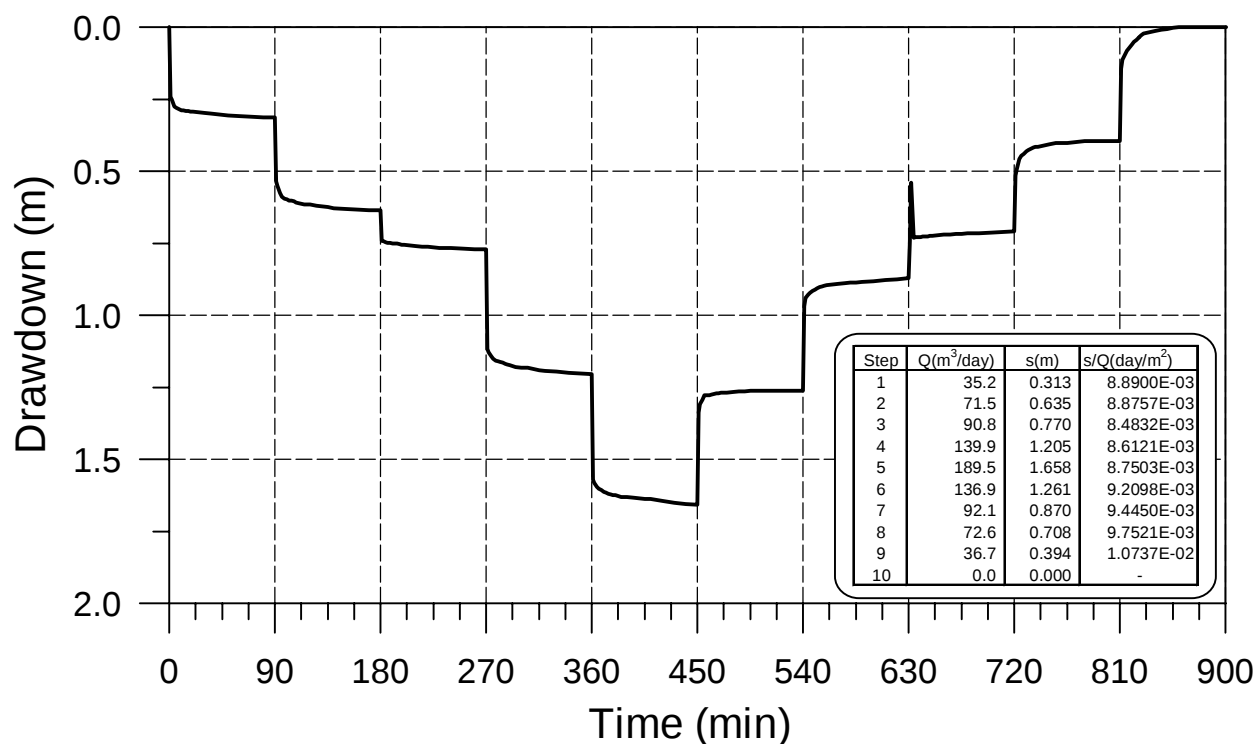
Drilled Depth: 42.0 m
 Well Depth: 26.9 m
 Screen Depth(s): 7.90 - 23.74 m
 Screen Length: 11.88 m
 Ground Elevation: 12 m

Figure 4.2.4.10

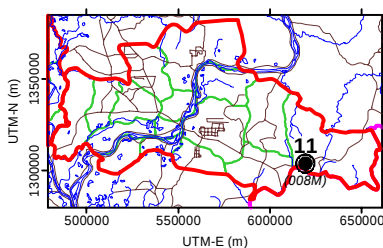
Results of Step-Drawdown Test at No.10 Test Well (Vil. No. 197G)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
District: Memot
Commune: Dar
Village: Dar Lech
Village No.: 008M

Long.-E(deg): 106.0944
Lati.-N(deg): 11.7930
UTM-E(m): 619242
UTM-N(m): 1303905

WELL SPECIFICATION

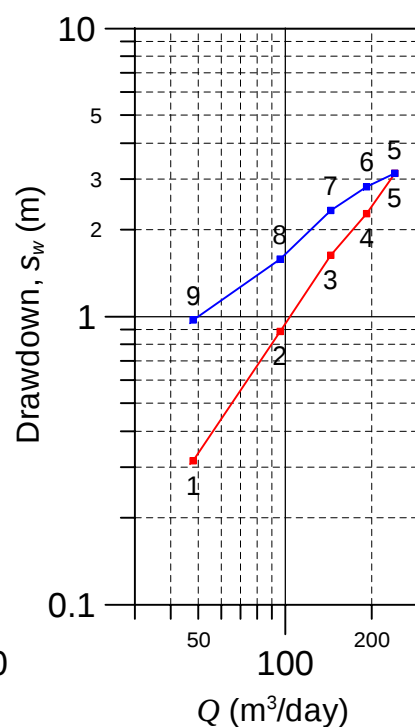
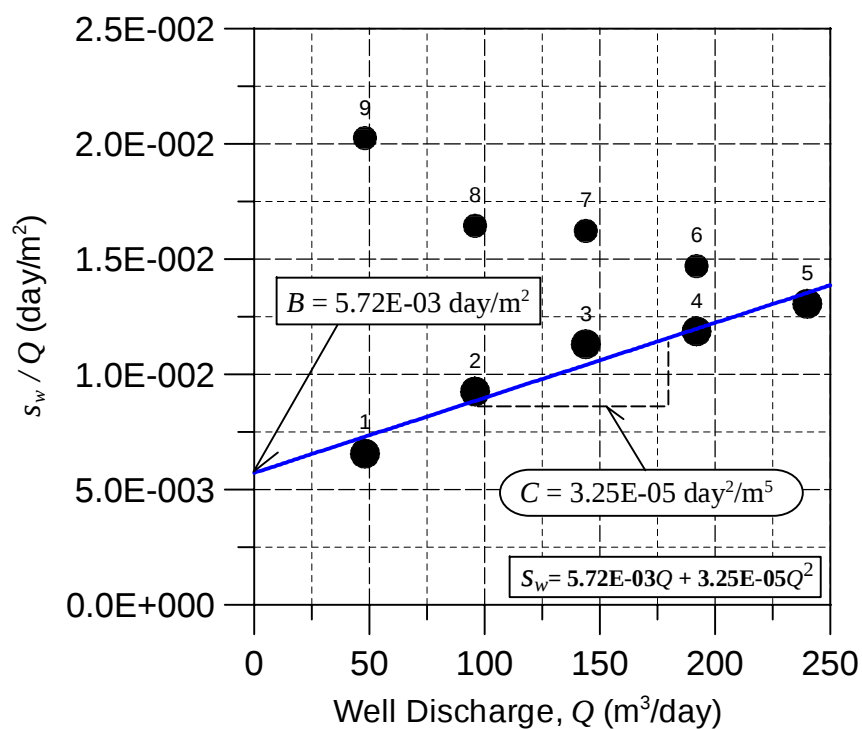
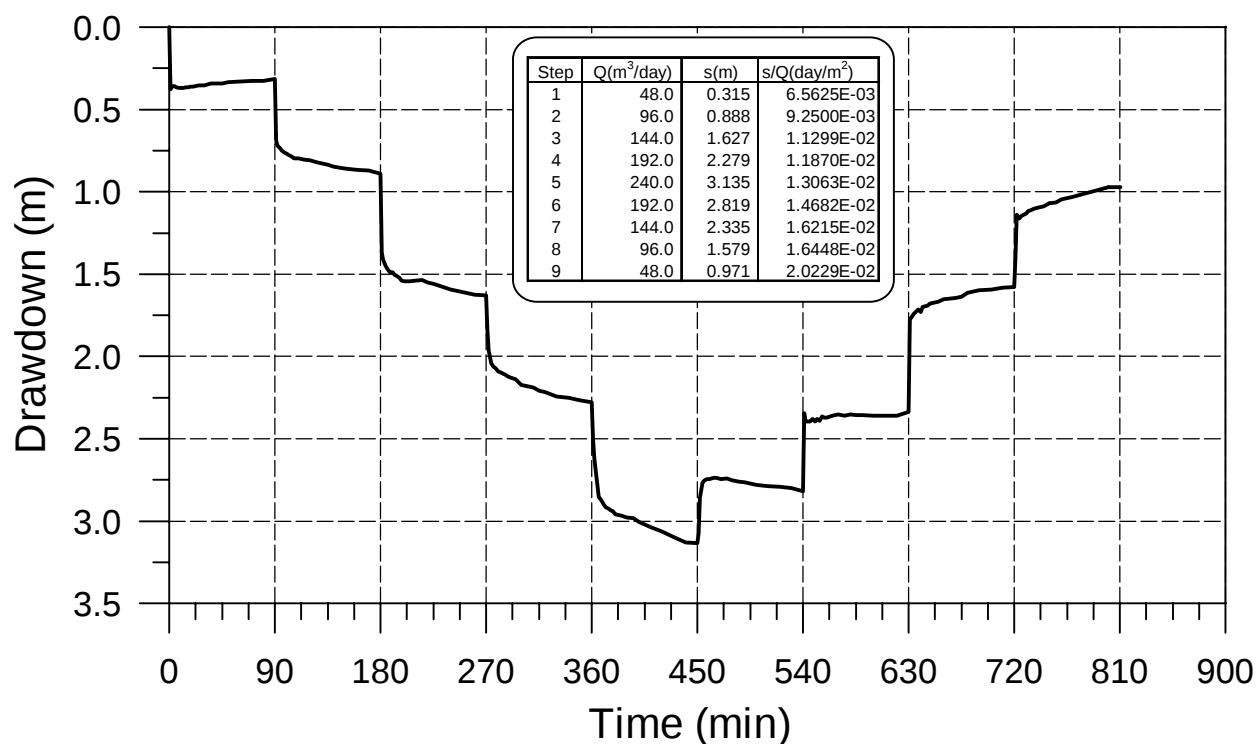
Drilled Depth: 38.0 m
Well Depth: 37.0 m
Screen Depth(s): 20.16 - 36.00 m
Screen Length: 15.84 m
Ground Elevation: 55 m

Figure 4.2.4.11

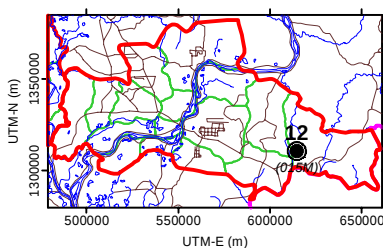
Results of Step-Drawdown Test at No.11 Test Well (Vil. No. 008M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Memot
 Commune: Dar
 Village: Meaek Puk
 Village No.: 015M

Long.-E(deg): 106.0530
 Lati.-N(deg): 11.8540
 UTM-E(m): 614702
 UTM-N(m): 1310634

WELL SPECIFICATION

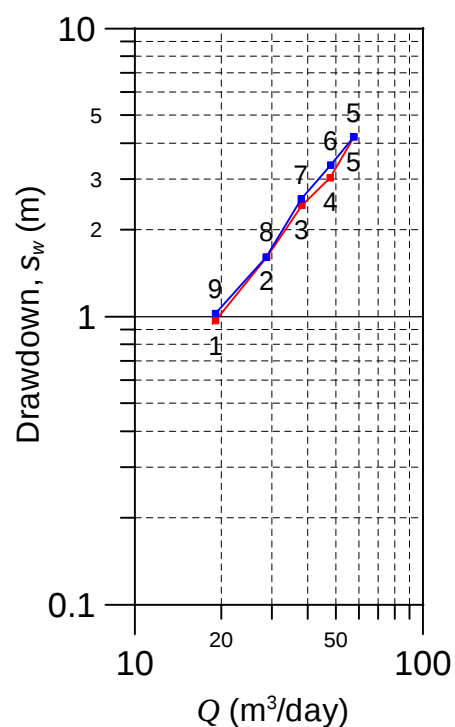
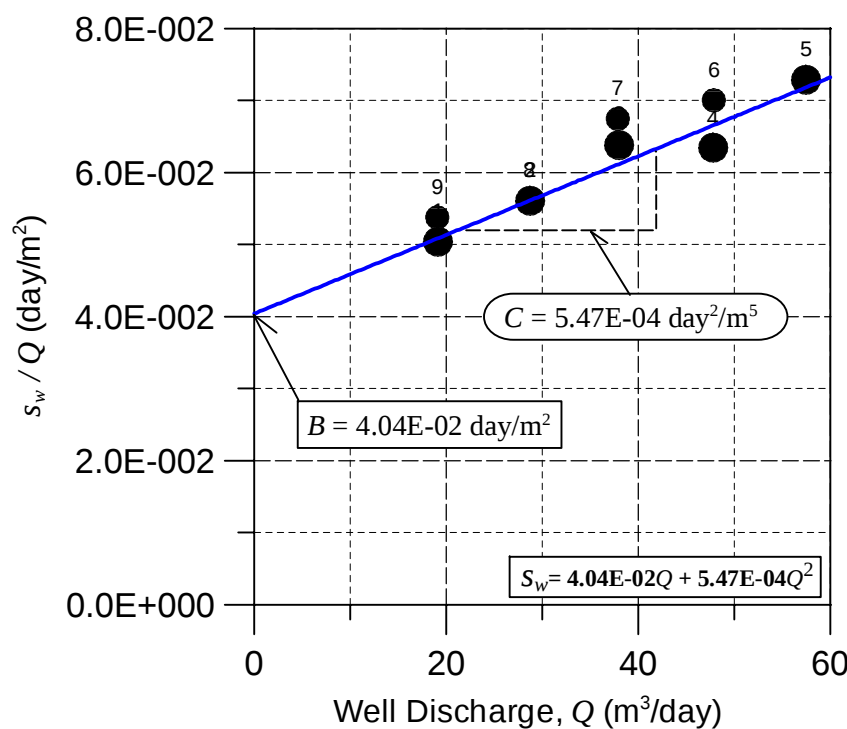
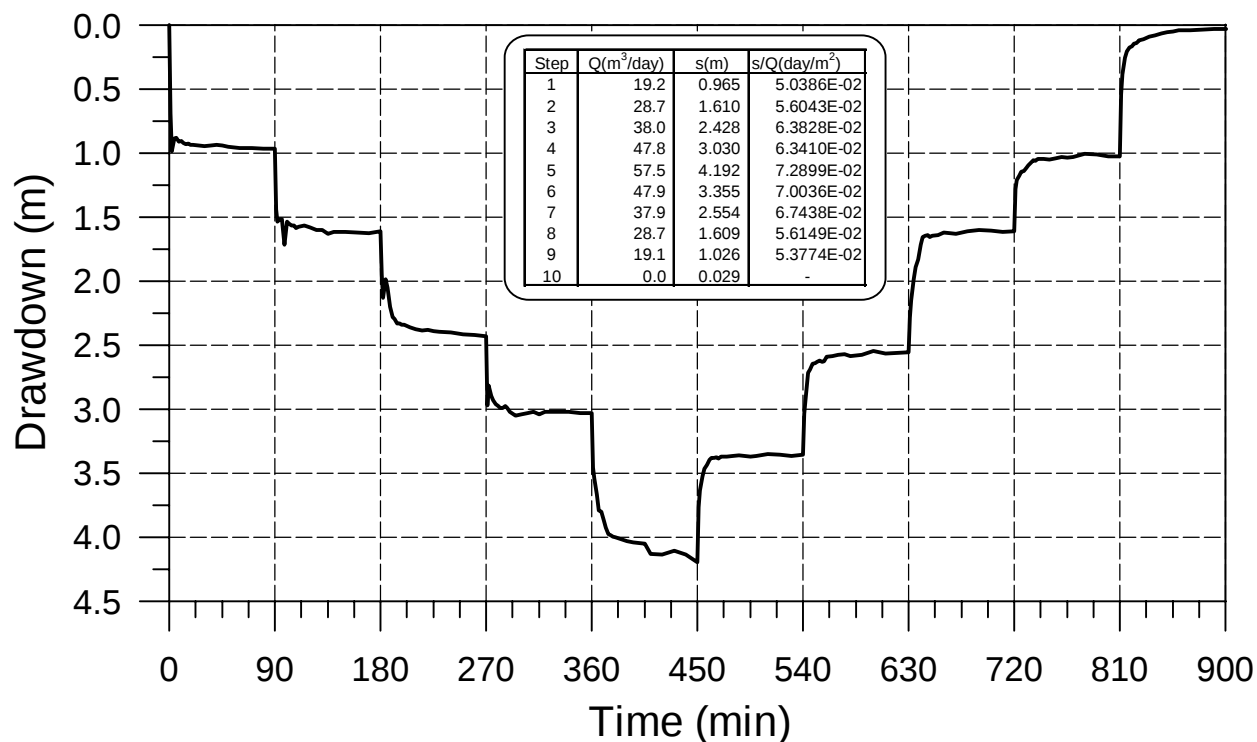
Drilled Depth: 26.0 m
 Well Depth: 25.5 m
 Screen Depth(s): 17.25 - 25.20 m
 Screen Length: 7.95 m
 Ground Elevation: 88 m

Figure 4.2.4.12

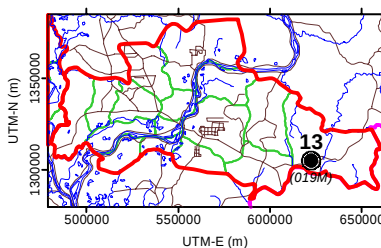
Results of Step-Drawdown Test at No.12 Test Well (Vil. No. 015M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Memot
 Commune: Dar
 Village: Somrong Chheung
 Village No.: 019M

Long.-E(deg): 106.1225
 Lat.-N(deg): 11.8070
 UTM-E(m): 622288
 UTM-N(m): 1305458

WELL SPECIFICATION

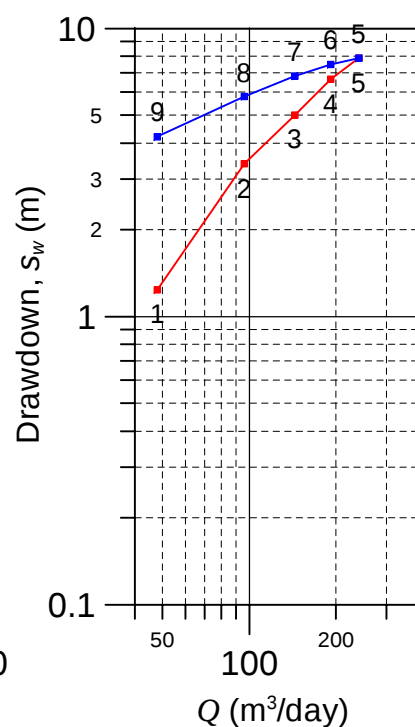
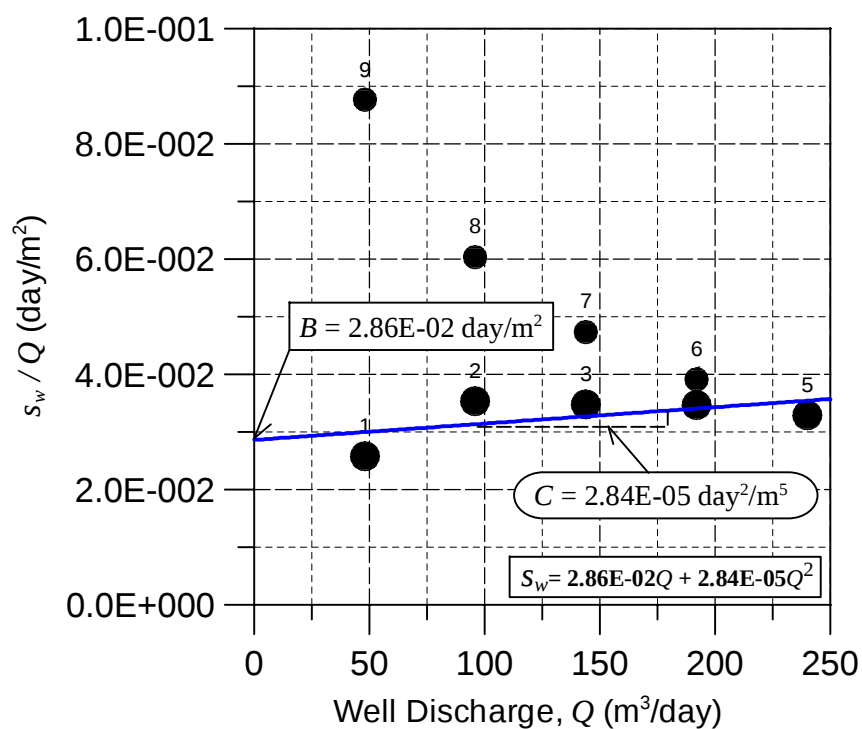
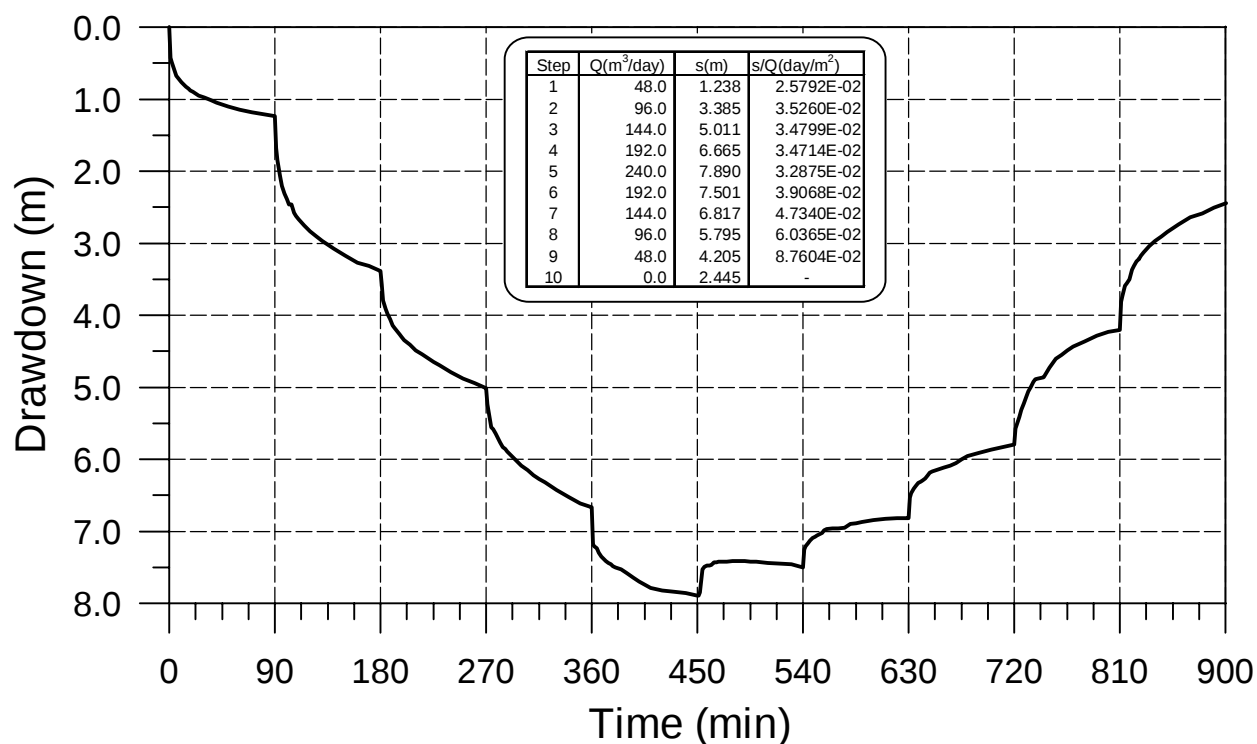
Drilled Depth: 29.0 m
 Well Depth: 27.0 m
 Screen Depth(s): 18.50 - 25.50 m
 Screen Length: 7.00 m
 Ground Elevation: 73 m

Figure 4.2.4.13

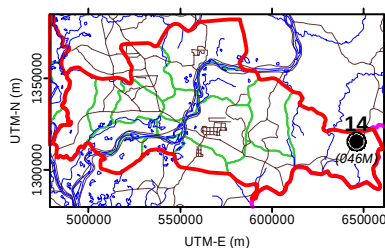
Results of Step-Drawdown Test at No.13 Test Well (Vil. No. 019M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Memot
 Commune: Ton Lung
 Village: Kdol Phsar
 Village No.: 046M

Long.-E(deg): 106.3400
 Lat.-N(deg): 11.8977
 UTM-E(m): 645953
 UTM-N(m): 1315592

WELL SPECIFICATION

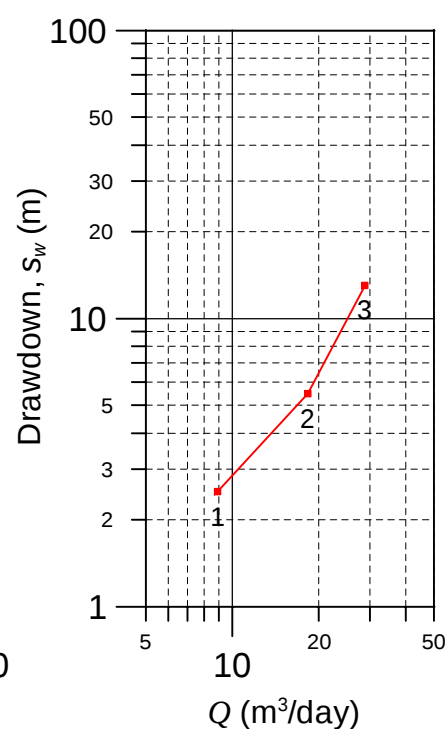
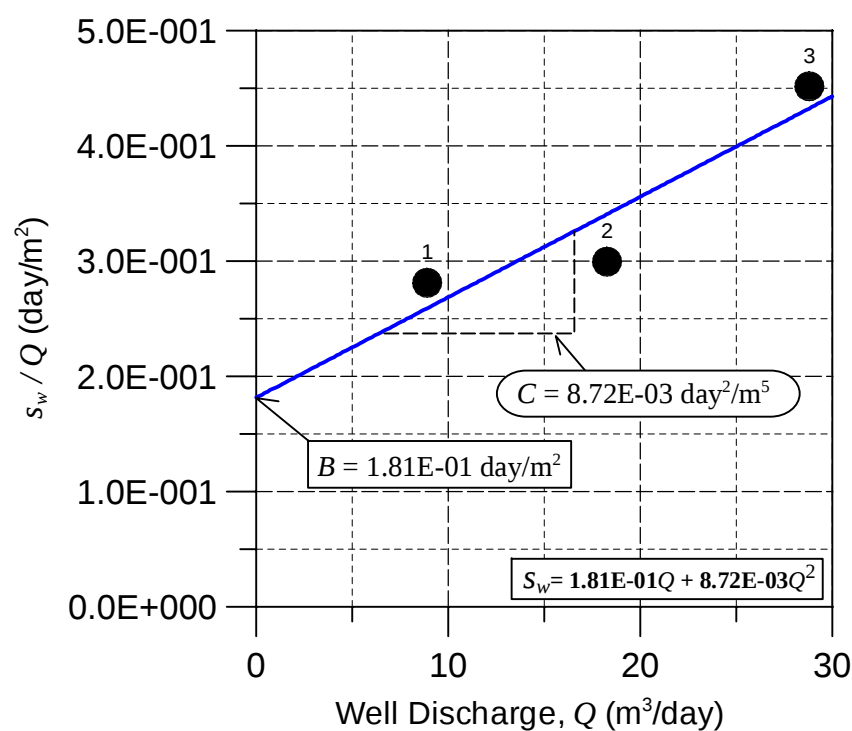
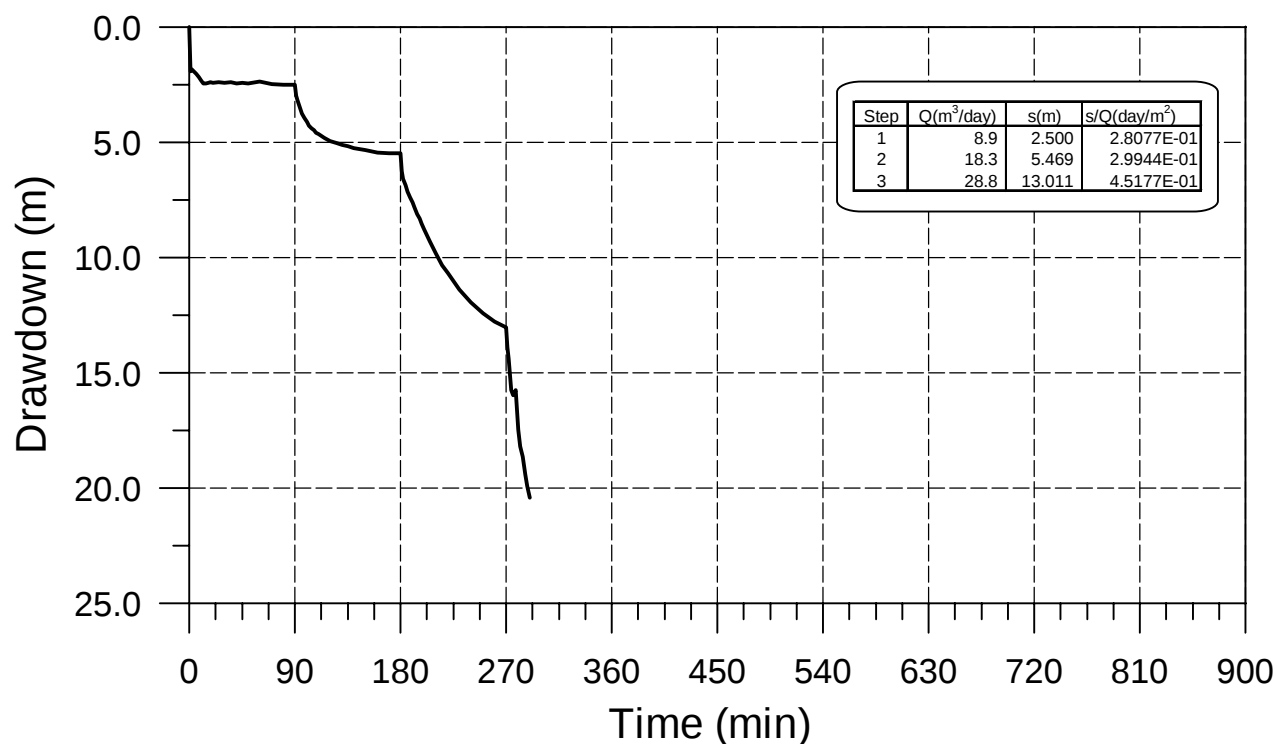
Drilled Depth: 28.0 m
 Well Depth: 27.5 m
 Screen Depth(s): 5.70 - 25.50 m
 Screen Length: 15.84 m
 Ground Elevation: 60 m

Figure 4.2.4.14

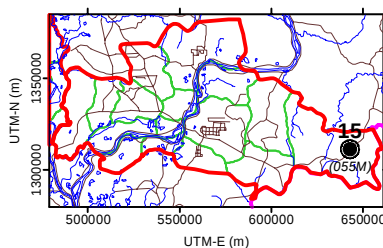
Results of Step-Drawdown Test at No.14 Test Well (Vil. No. 046M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Memot
 Commune: Ton Lung
 Village: Sla Phnum
 Village No.: 055M

Long.-E(deg): 106.3110
 Lat.-N(deg): 11.8599
 UTM-E(m): 642783
 UTM-N(m): 1311401

WELL SPECIFICATION

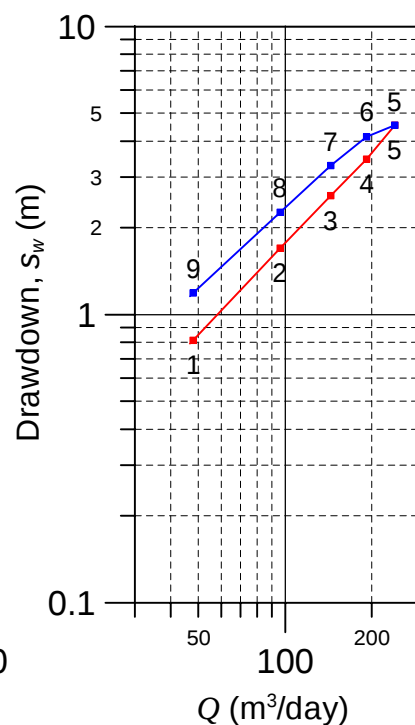
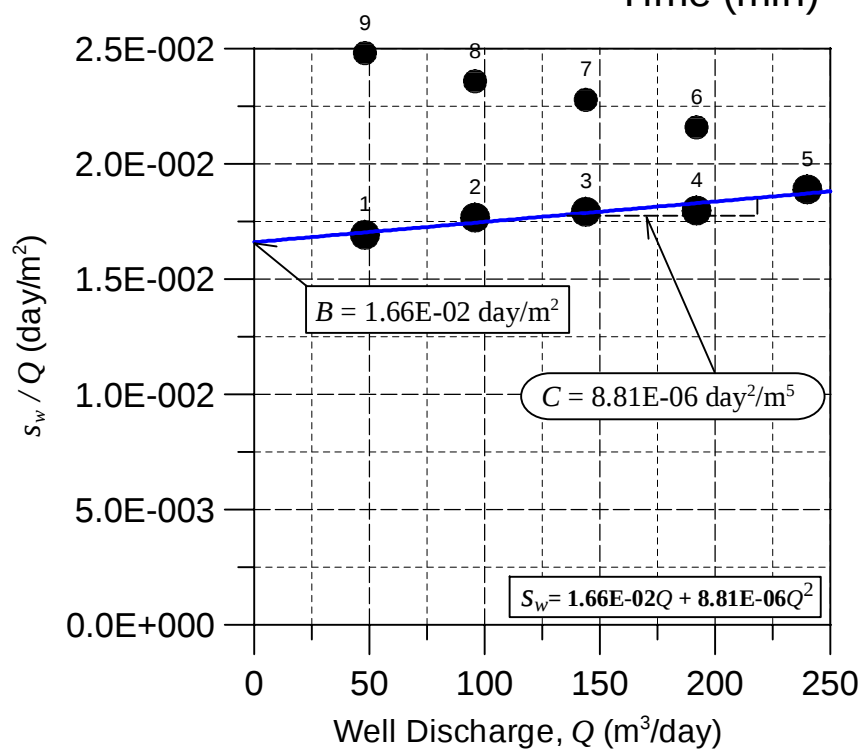
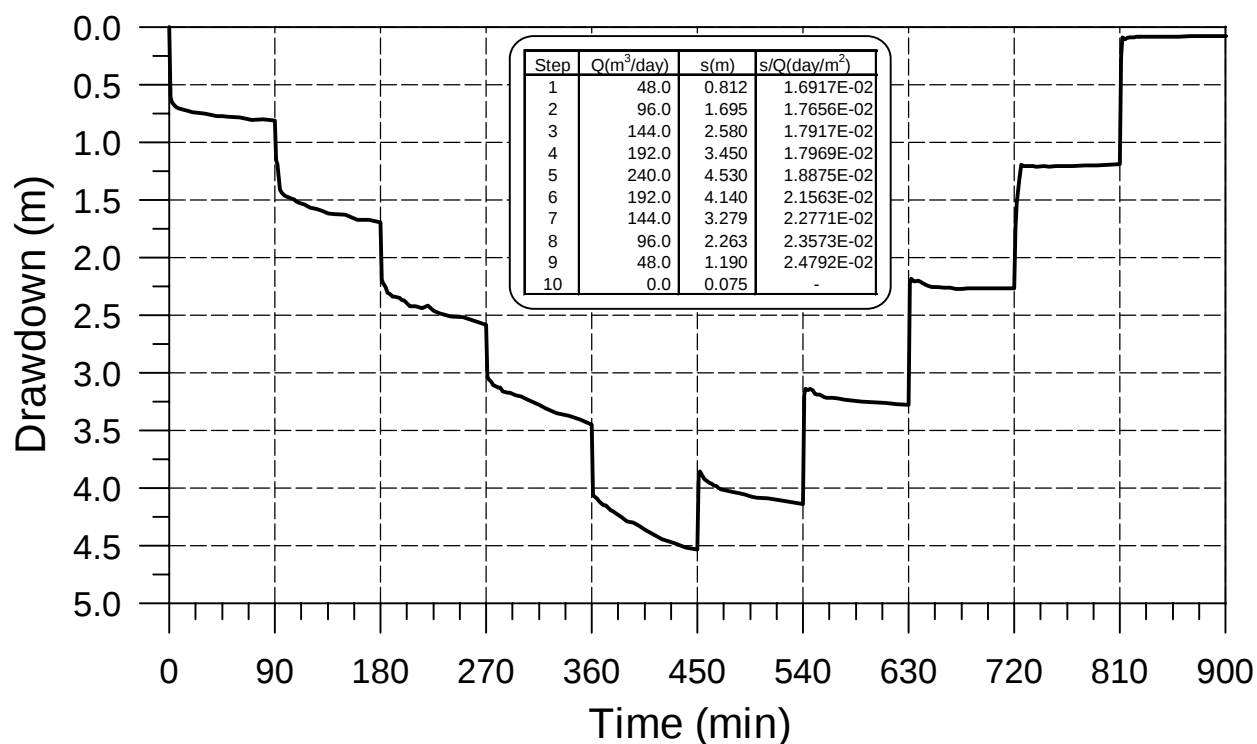
Drilled Depth: 76.0 m
 Well Depth: 75.0 m
 Screen Depth(s): 32.28 - 72.03 m
 Screen Length: 23.85 m
 Ground Elevation: 152 m

Figure 4.2.4.15

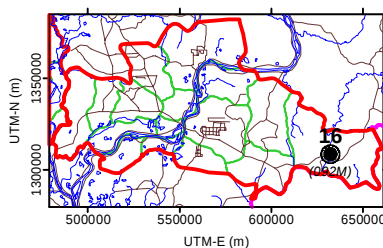
Results of Step-Drawdown Test at No.15 Test Well (Vil. No. 055M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
District: Memot
Commune: Tramung
Village: Chhuk
Village No.: 092M

Long.-E(deg): 106.2130
Lat.-N(deg): 11.8355
UTM-E(m): 632132
UTM-N(m): 1308645

WELL SPECIFICATION

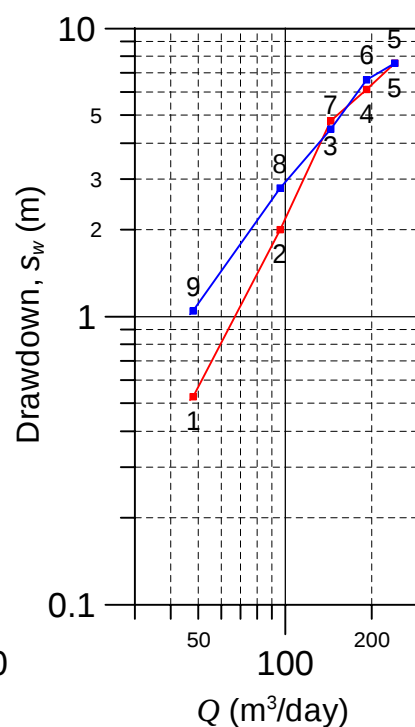
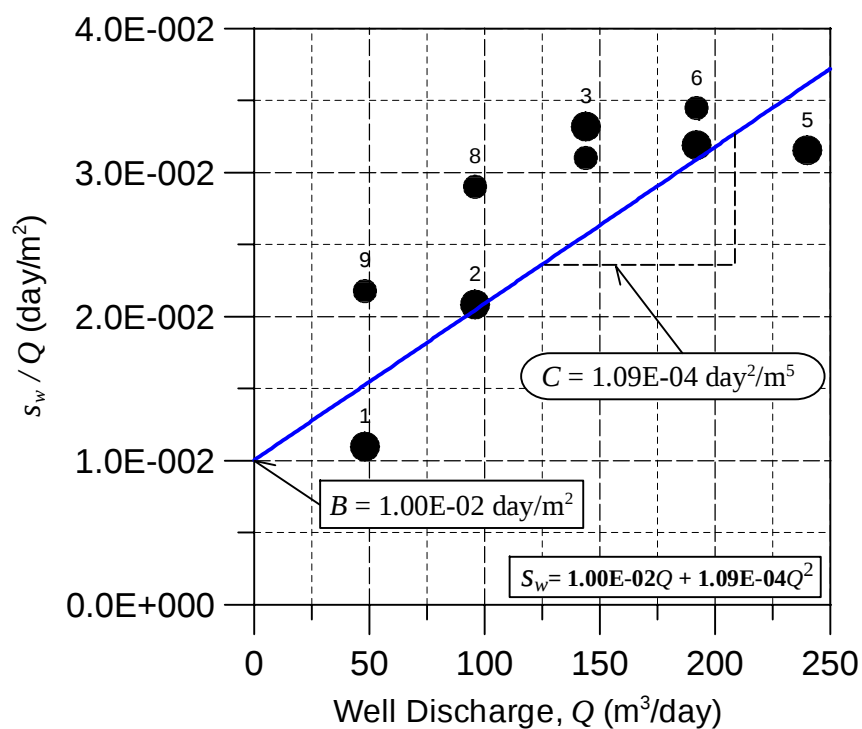
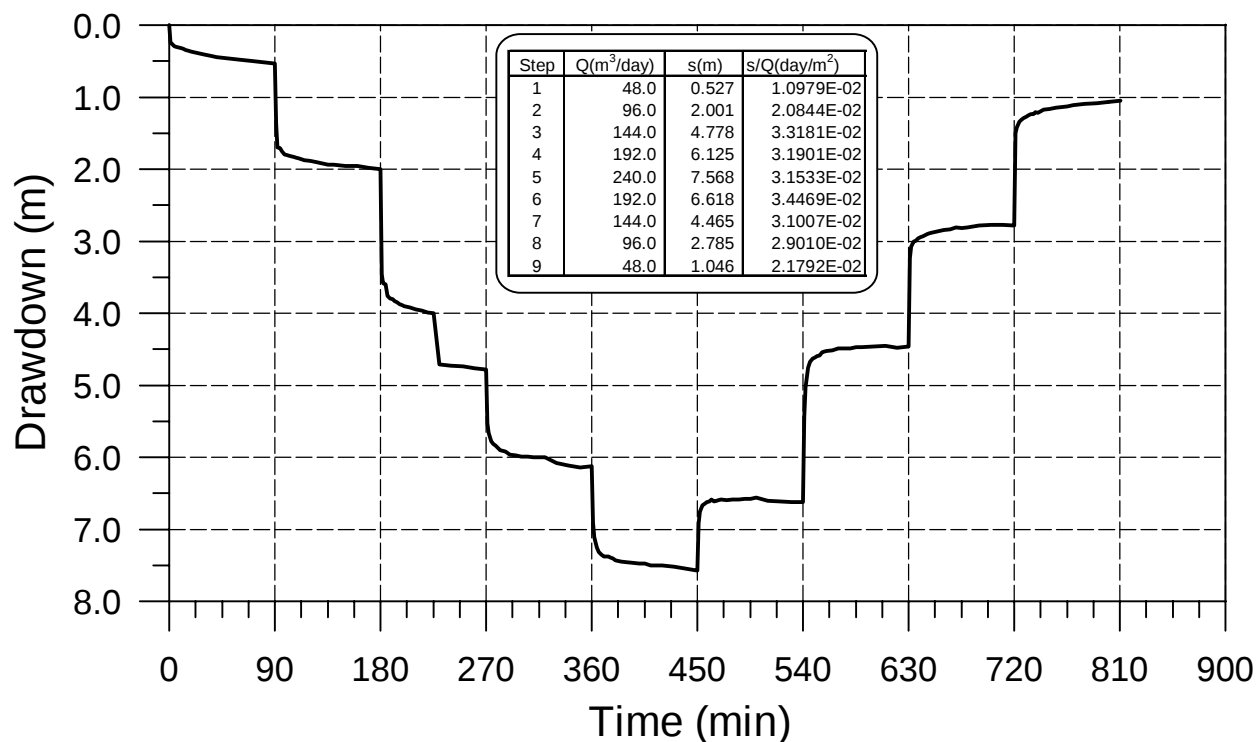
Drilled Depth: 32.0 m
Well Depth: 25.0 m
Screen Depth(s): 15.04 - 22.00 m
Screen Length: 6.96 m
Ground Elevation: 82 m

Figure 4.2.4.16

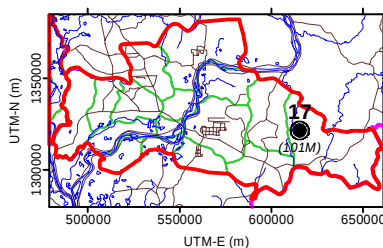
Results of Step-Drawdown Test at No.16 Test Well (Vil. No. 092M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Memot
 Commune: Kampoan
 Village: Lour
 Village No.: 101M

Long.-E(deg): 106.0598
 Lat.-N(deg): 11.9531
 UTM-E(m): 615401
 UTM-N(m): 1321585

WELL SPECIFICATION

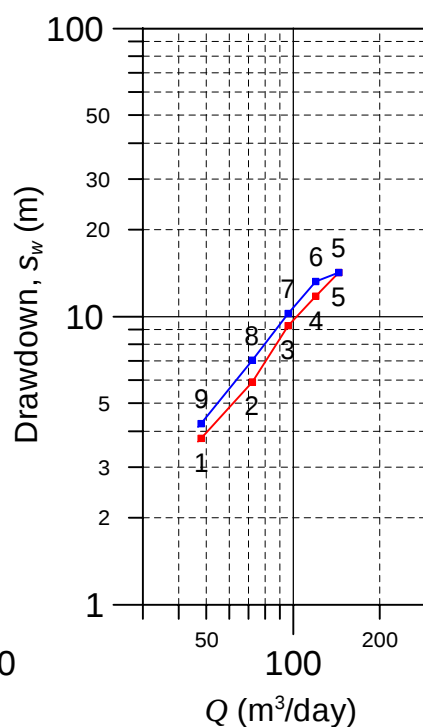
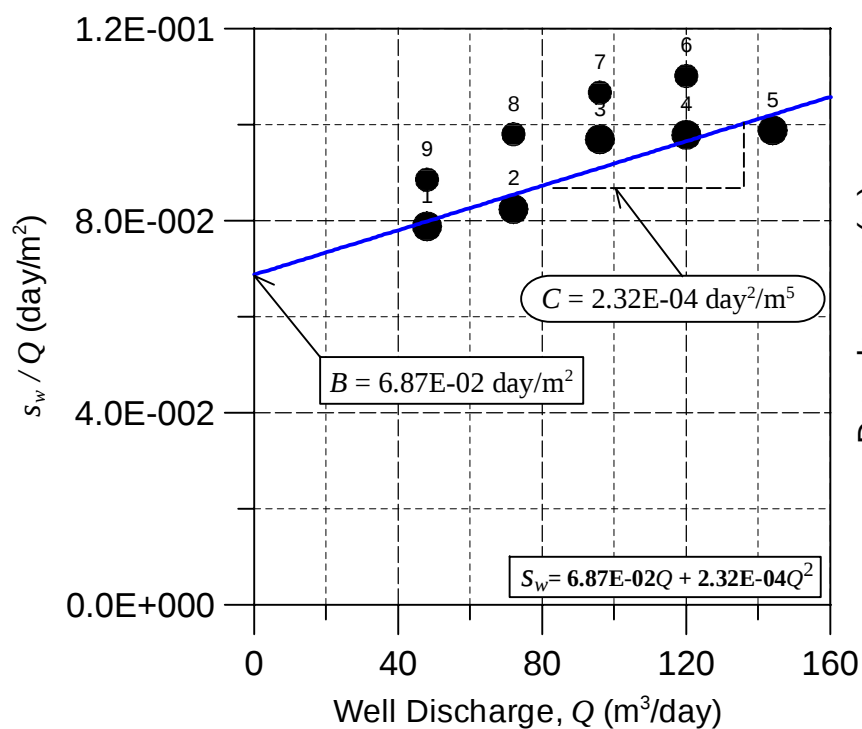
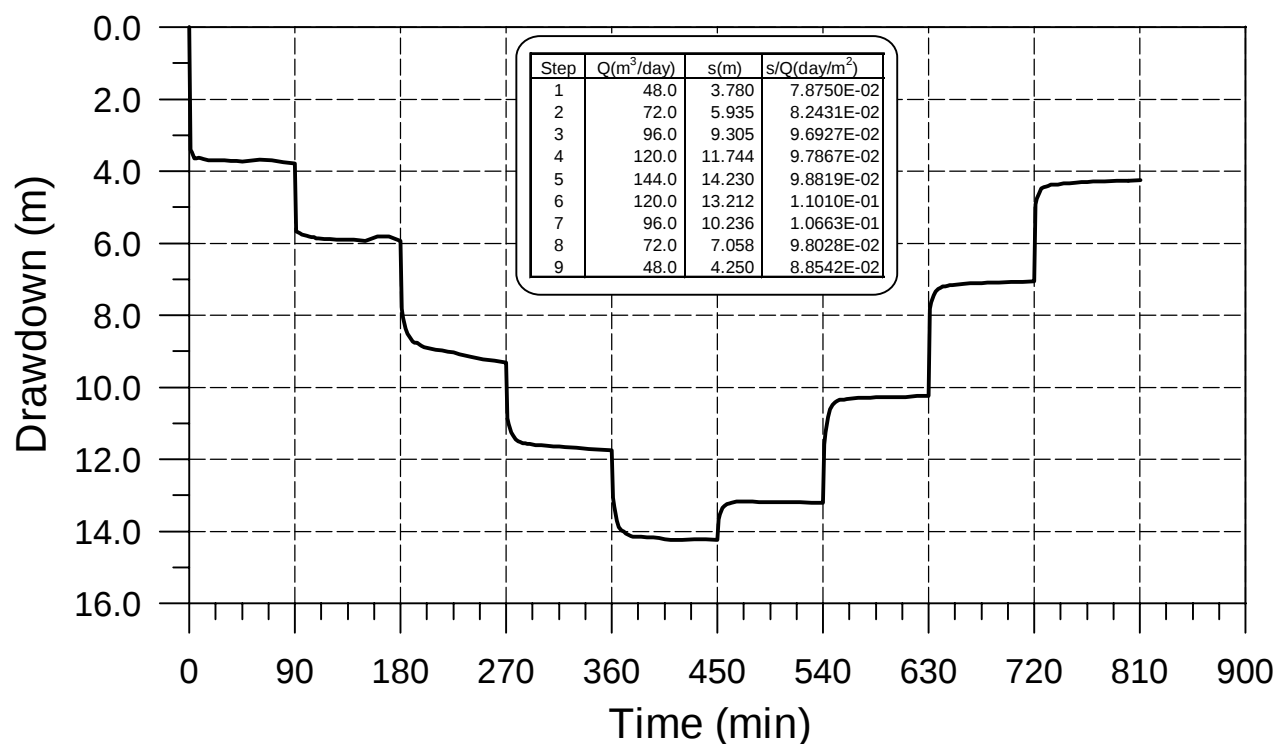
Drilled Depth: 40.3 m
 Well Depth: 40.3 m
 Screen Depth(s): 17.50 - 36.34 m
 Screen Length: 15.84 m
 Ground Elevation: 142 m

Figure 4.2.4.17

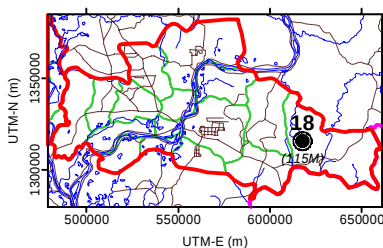
Results of Step-Drawdown Test at No.17 Test Well (Vil. No. 101M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
District: Memot
Commune: Kokir
Village: Kngaok
Village No.: 115M

Long.-E(deg): 106.0793
Lati.-N(deg): 11.9011
UTM-E(m): 617550
UTM-N(m): 1315851

WELL SPECIFICATION

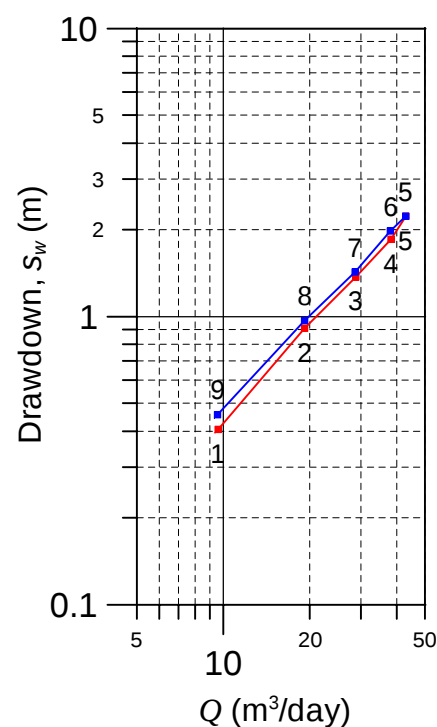
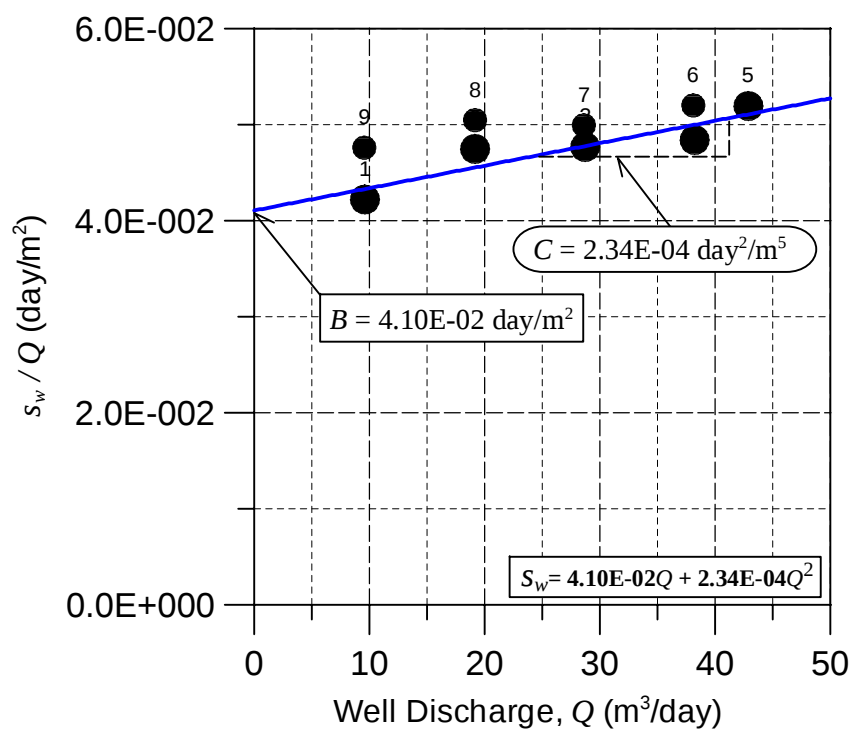
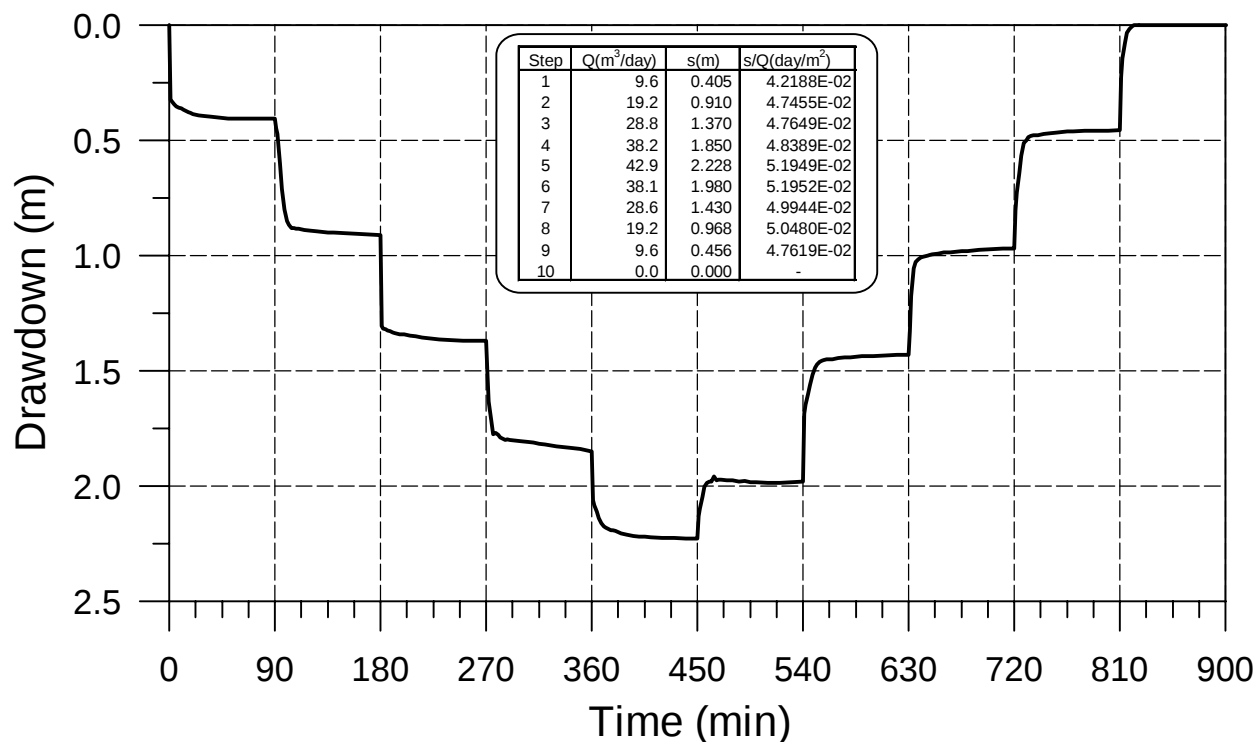
Drilled Depth: 48.0 m
Well Depth: 47.0 m
Screen Depth(s): 34.65 - 45.60 m
Screen Length: 10.95 m
Ground Elevation: 115 m

Figure 4.2.4.18

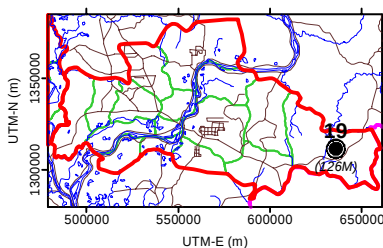
Results of Step-Drawdown Test at No.18 Test Well (Vil. No. 115M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Memot
 Commune: Choam Ta Mau
 Village: Kantuot
 Village No.: 126M

Long.-E(deg): 106.2453
 Lati.-N(deg): 11.8627
 UTM-E(m): 635648
 UTM-N(m): 1311683

WELL SPECIFICATION

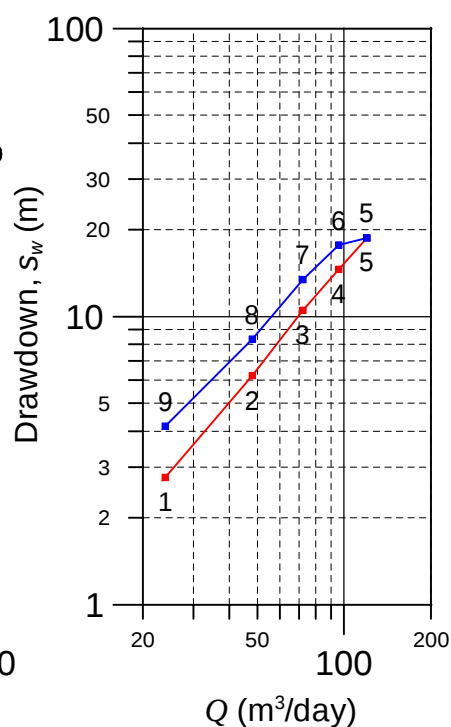
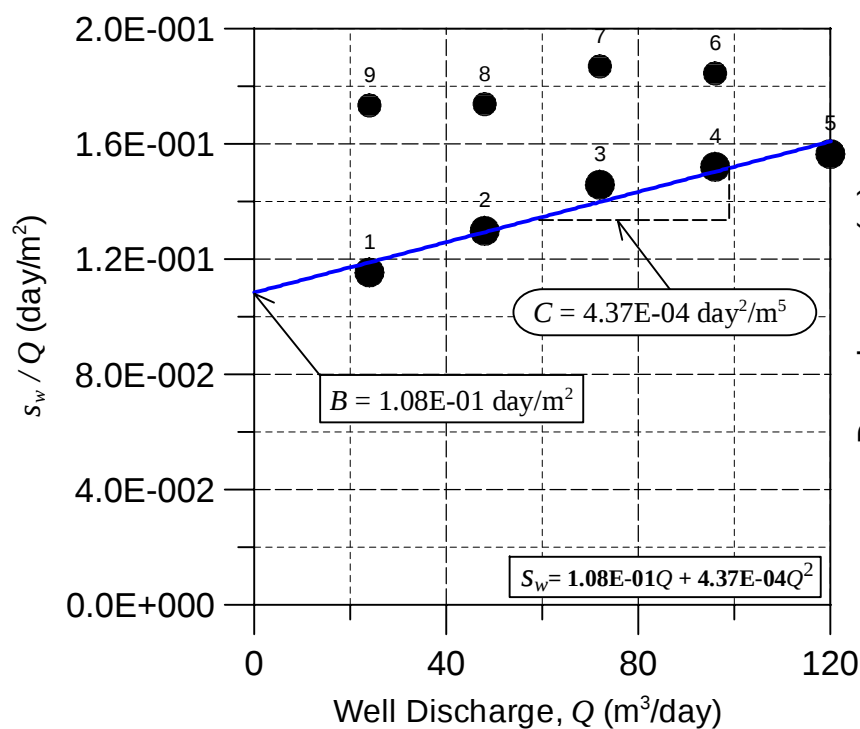
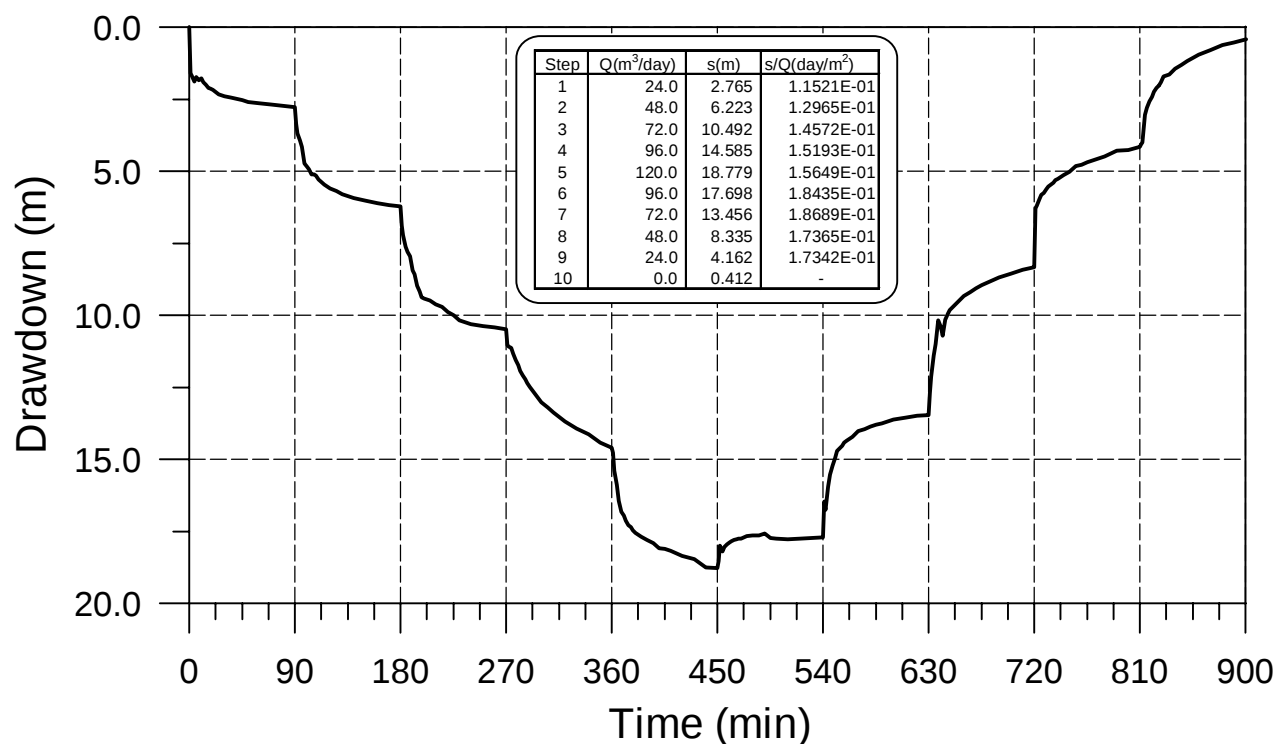
Drilled Depth: 52.0 m
 Well Depth: 27.0 m
 Screen Depth(s): 11.12 - 25.00 m
 Screen Length: 9.92 m
 Ground Elevation: 79 m

Figure 4.2.4.19

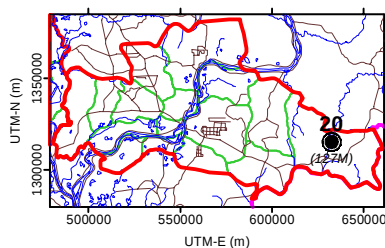
Results of Step-Drawdown Test at No.19 Test Well (Vil. No. 126M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Memot
 Commune: Choam Ta Mau
 Village: Angkam
 Village No.: 127M

Long.-E(deg): 106.2178
 Lat.-N(deg): 11.8947
 UTM-E(m): 632630
 UTM-N(m): 1315210

WELL SPECIFICATION

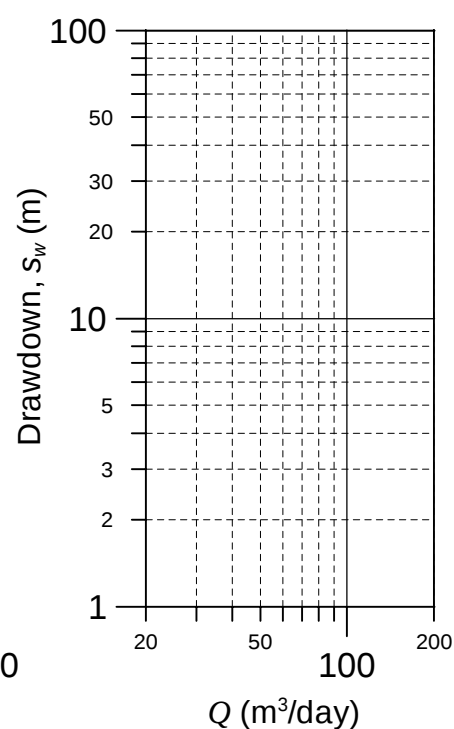
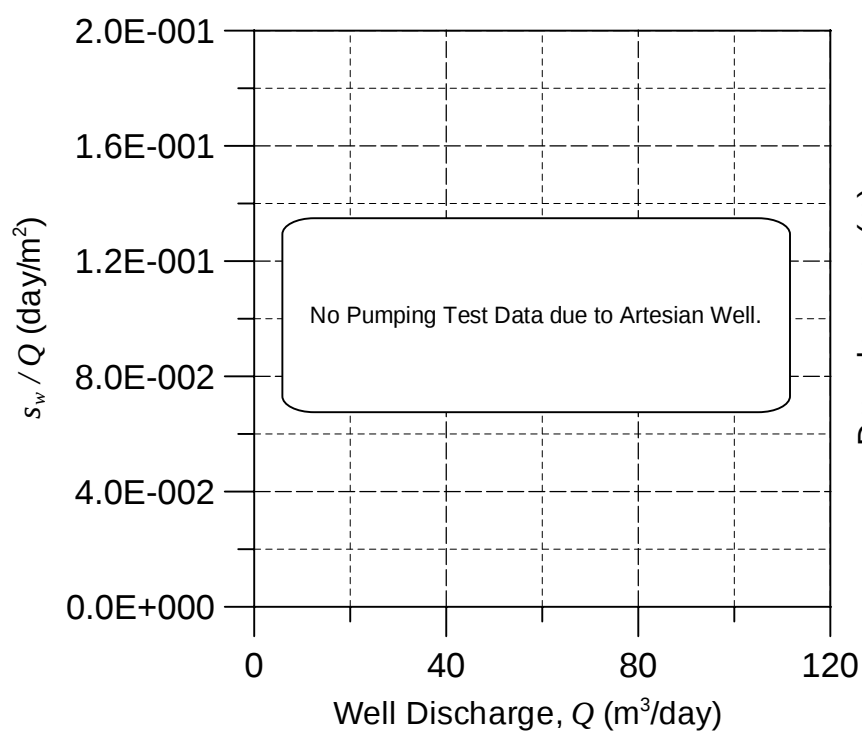
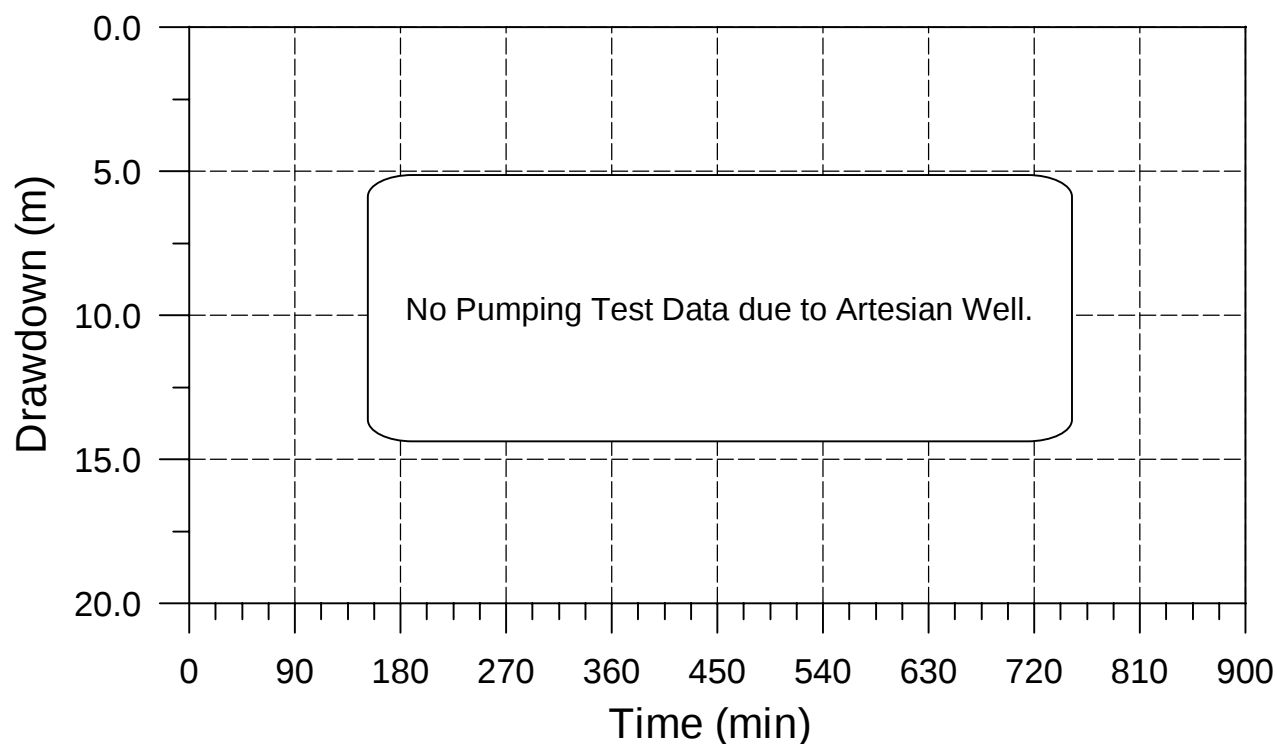
Drilled Depth: 49.7 m
 Well Depth: 49.0 m
 Screen Depth(s): 21.16 - 45.01 m
 Screen Length: 15.90 m
 Ground Elevation: 40 m

Figure 4.2.4.20

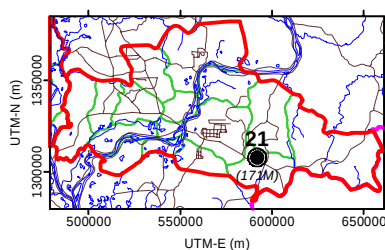
Results of Step-Drawdown Test at No.20 Test Well (Vil. No. 127M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
District: Ponhea Kraek
Commune: Popel
Village: Khsak
Village No.: 171M

Long.-E(deg): 105.8438
Lati.-N(deg): 11.8302
UTM-E(m): 591923
UTM-N(m): 1307921

WELL SPECIFICATION

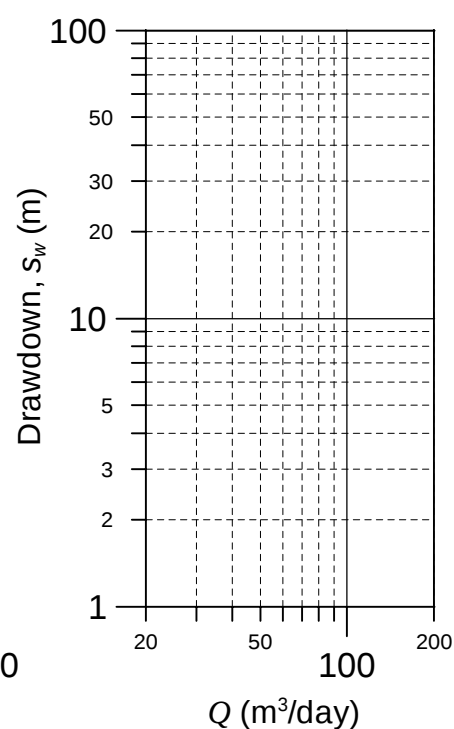
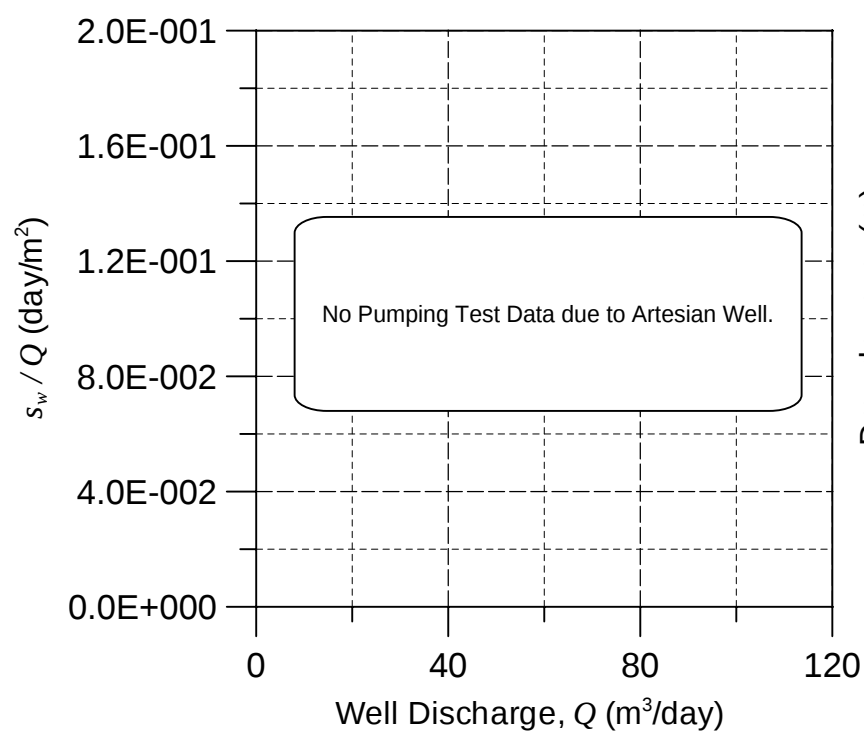
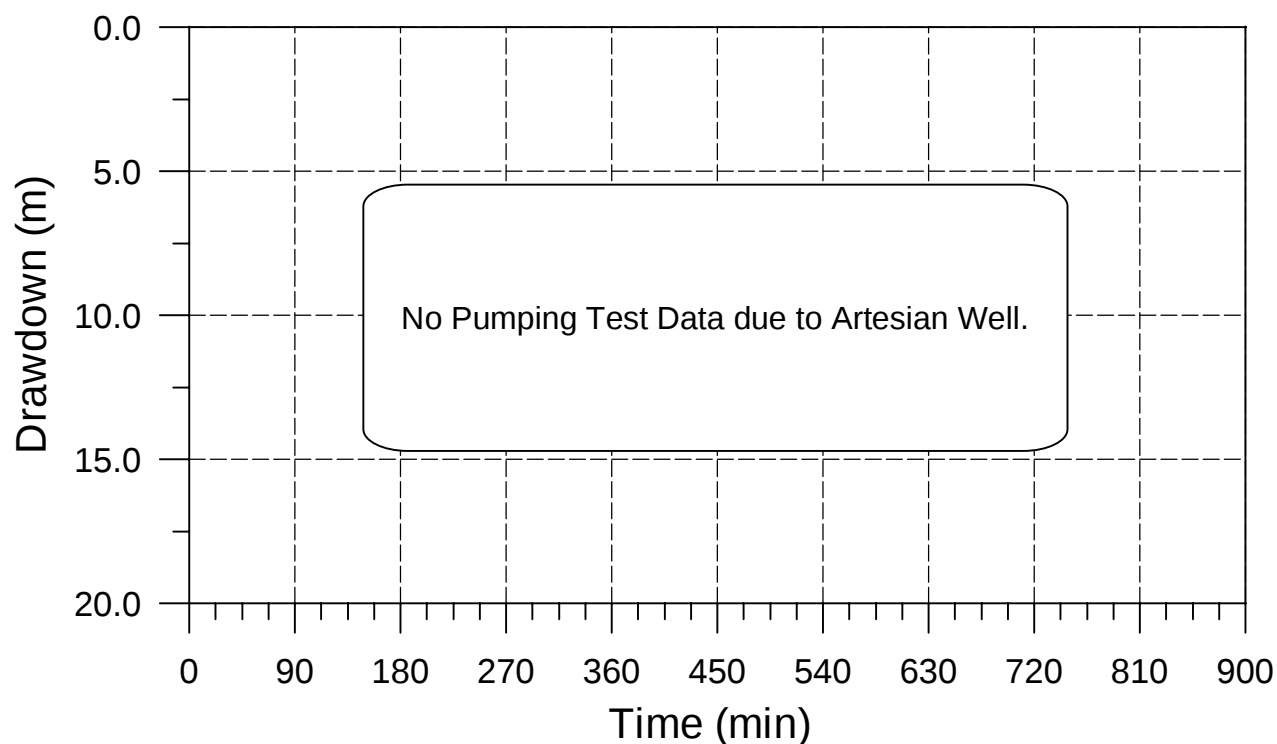
Drilled Depth: 42.0 m
Well Depth: 40.0 m
Screen Depth(s): 24.12 - 36.00 m
Screen Length: 11.88 m
Ground Elevation: 27 m

Figure 4.2.4.21

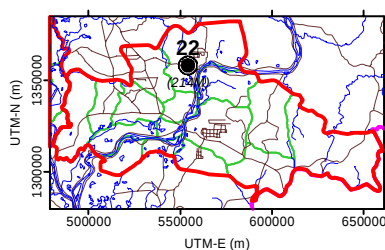
Results of Step-Drawdown Test at No.21 Test Well (Vil. No. 171M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
District: Steung Trang
Commune: Preak Kak
Village: Tuol Pou
Village No.: 214M

Long.-E(deg): 105.4987
Lati.-N(deg): 12.2858
UTM-E(m): 554231
UTM-N(m): 1358213

WELL SPECIFICATION

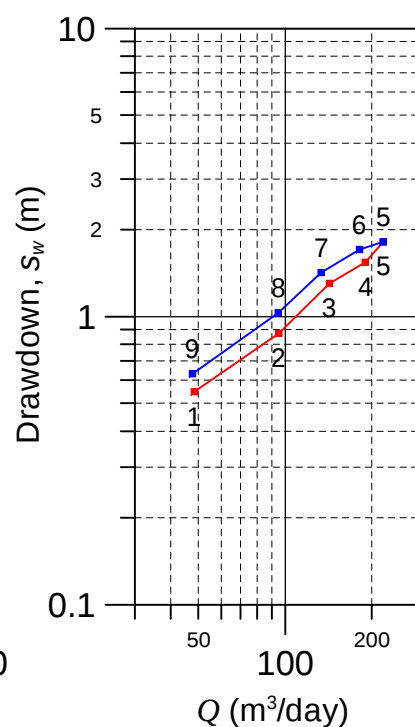
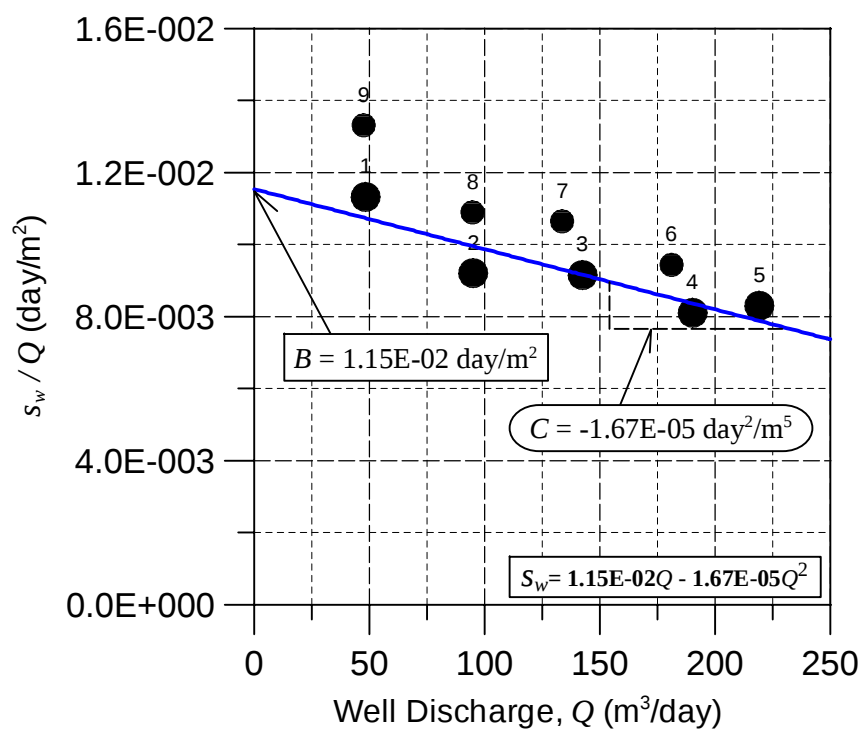
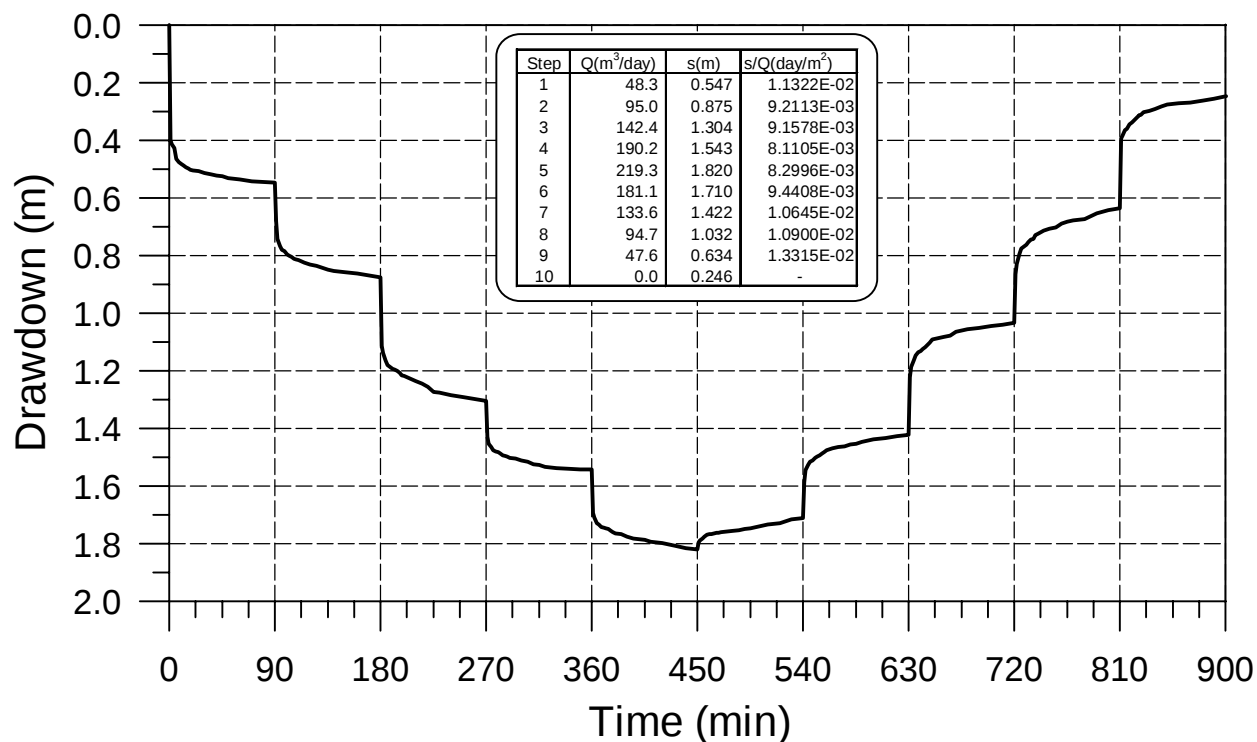
Drilled Depth: 87.0 m
Well Depth: 84.0 m
Screen Depth(s): 37.30 - 81.03 m
Screen Length: 31.80 m
Ground Elevation: 17 m

Figure 4.2.4.22

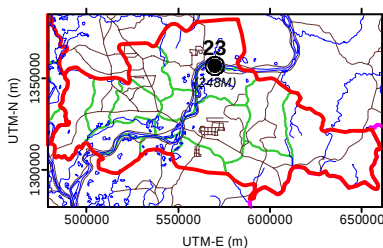
Results of Step-Drawdown Test at No.22 Test Well (Vil. No. 214M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Krouch Chhmar
 Commune: Svay Khleang
 Village: Phum Ti Prammuoy
 Village No.: 248M

Long.-E(deg): 105.6433
 Lati.-N(deg): 12.2794
 UTM-E(m): 569955
 UTM-N(m): 1356873

WELL SPECIFICATION

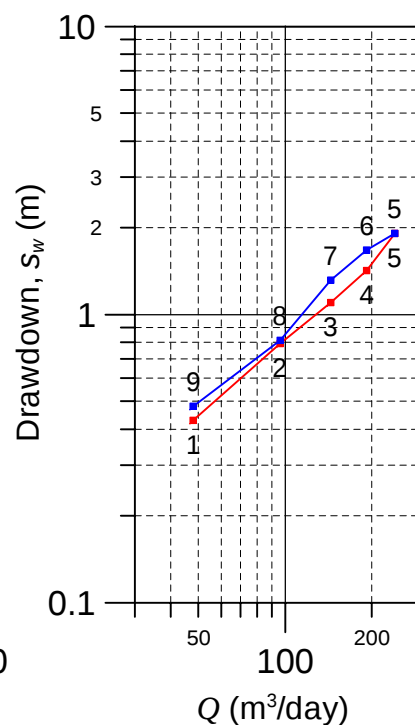
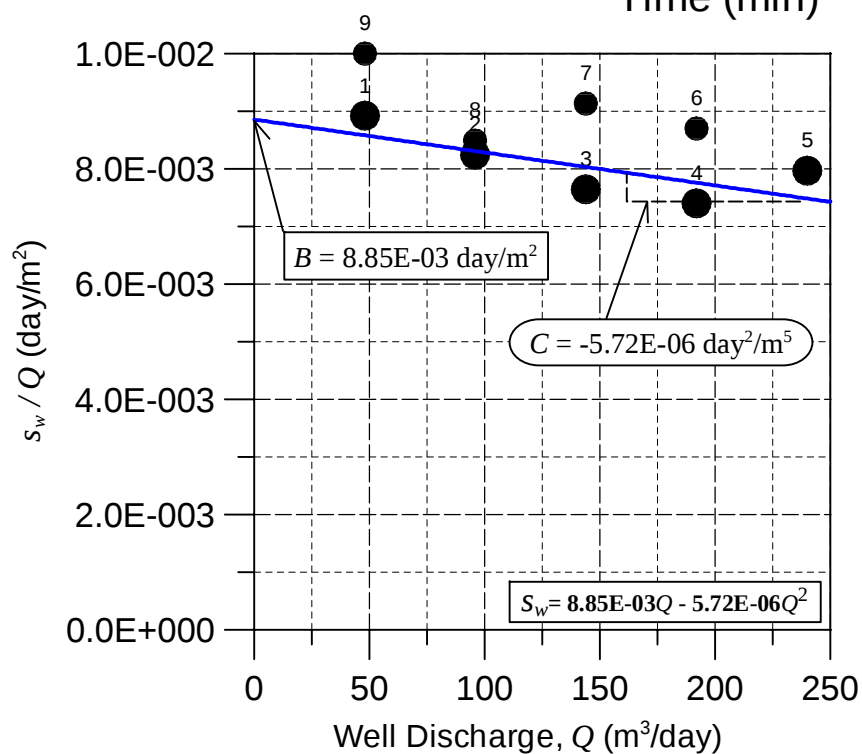
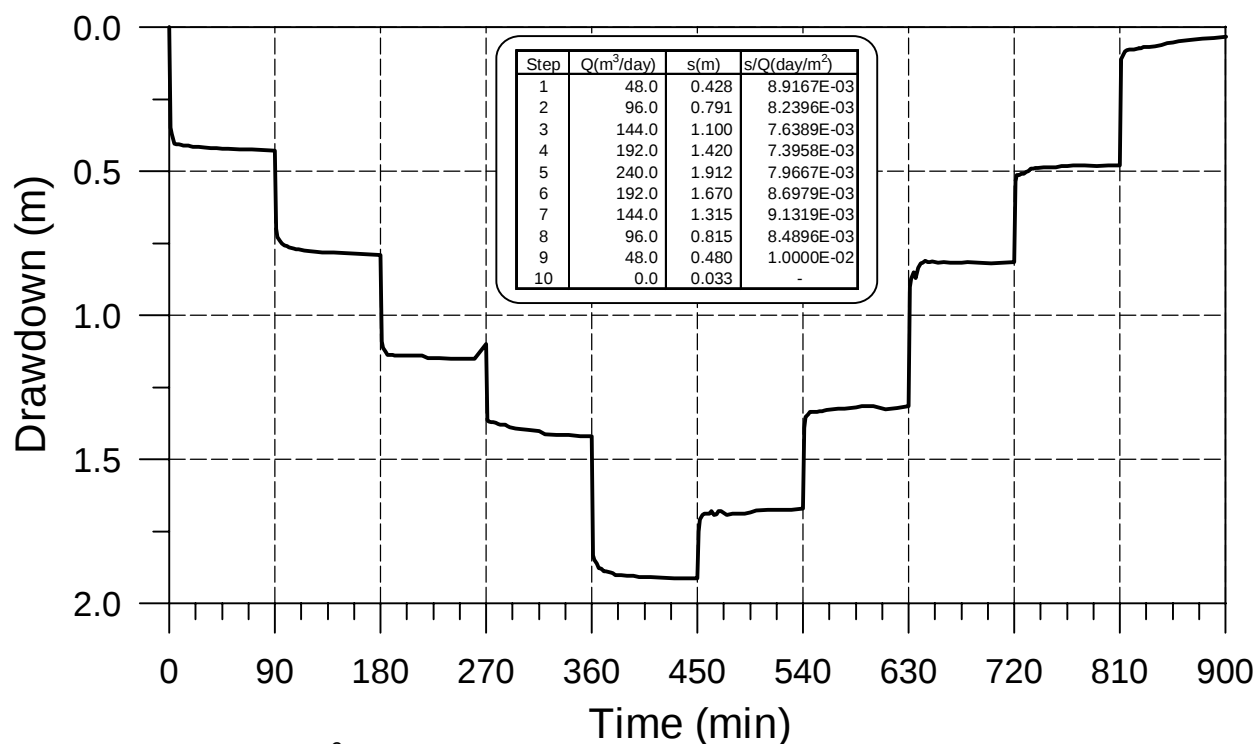
Drilled Depth: 68.0 m
 Well Depth: 64.0 m
 Screen Depth(s): 36.18 - 60.03 m
 Screen Length: 19.88 m
 Ground Elevation: 17 m

Figure 4.2.4.23

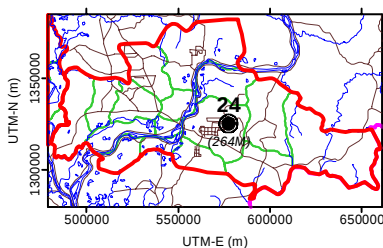
Results of Step-Drawdown Test at No.23 Test Well (Vil. No. 248M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham Long.-E(deg): 105.7075
 District: Tboung Khmum Lati.-N(deg): 11.9913
 Commune: Kor UTM-E(m): 577026
 Village: Veal Khmum UTM-N(m): 1325691
 Village No.: 264M

WELL SPECIFICATION

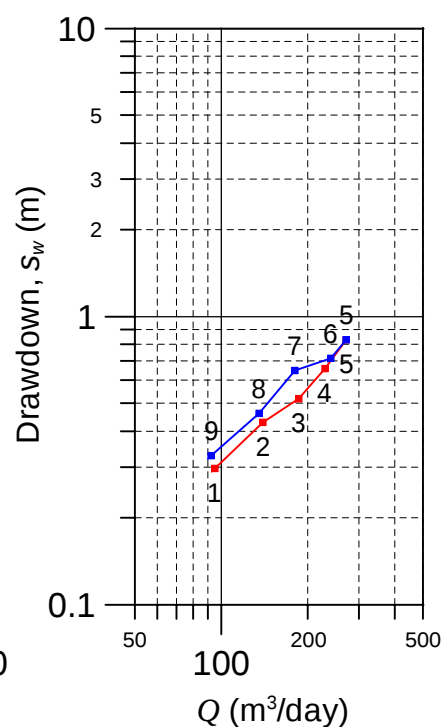
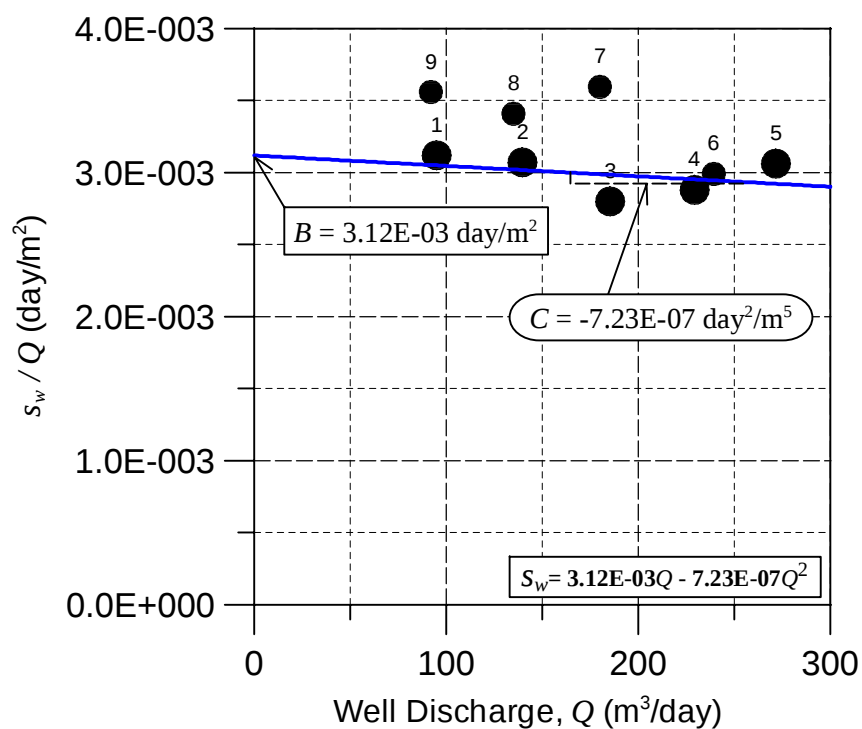
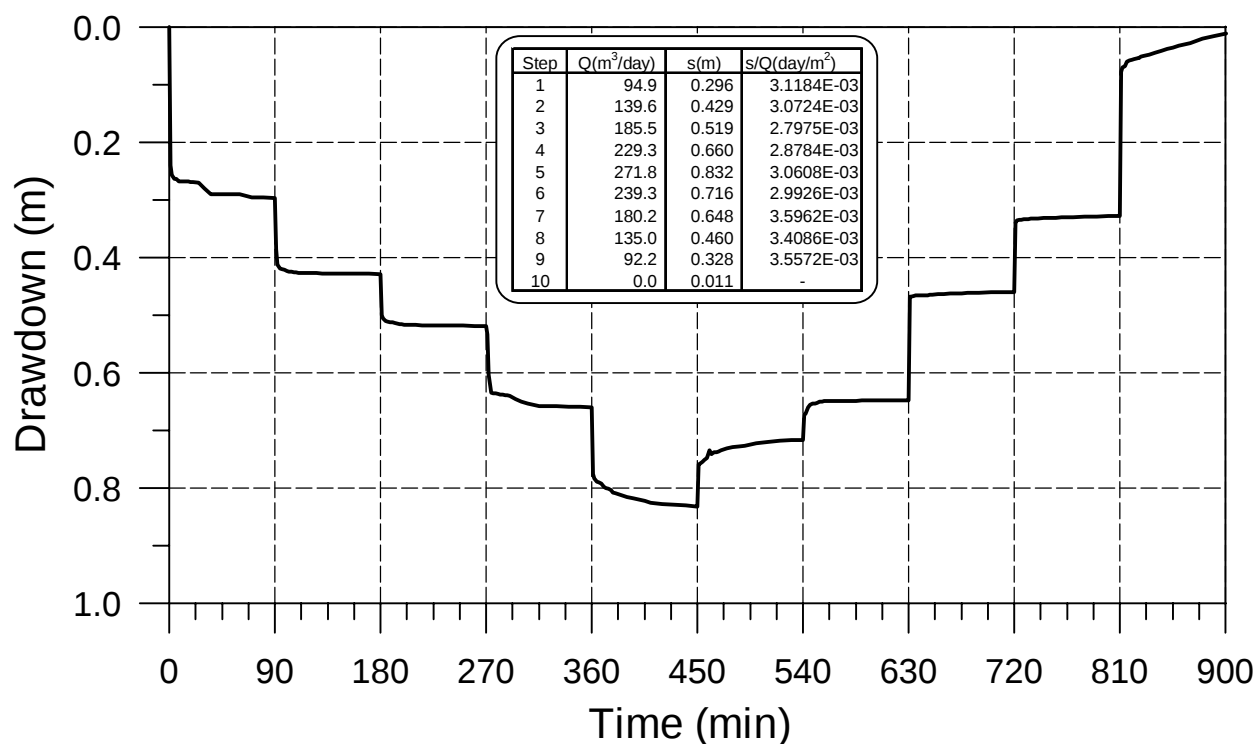
Drilled Depth: 40.0 m
 Well Depth: 40.0 m
 Screen Depth(s): 24.16 - 36.04 m
 Screen Length: 11.88 m
 Ground Elevation: 25 m

Figure 4.2.4.24

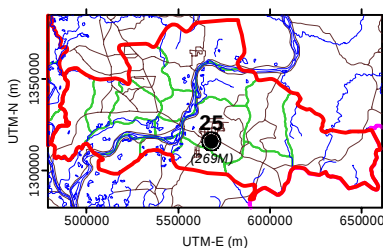
Results of Step-Drawdown Test at No.24 Test Well (Vil. No. 264M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham Long.-E(deg): 105.6250
 District: Tboung Khmum Lat.-N(deg): 11.9043
 Commune: Mong Rieng UTM-E(m): 568064
 Village: Mong Ti Prampir UTM-N(m): 1316054
 Village No.: 269M

WELL SPECIFICATION

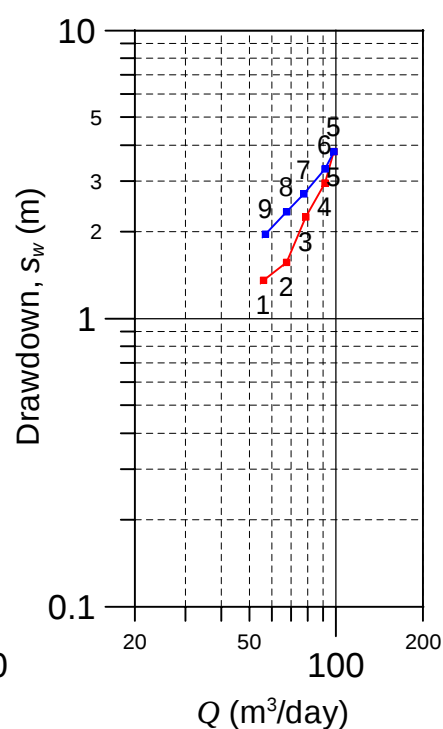
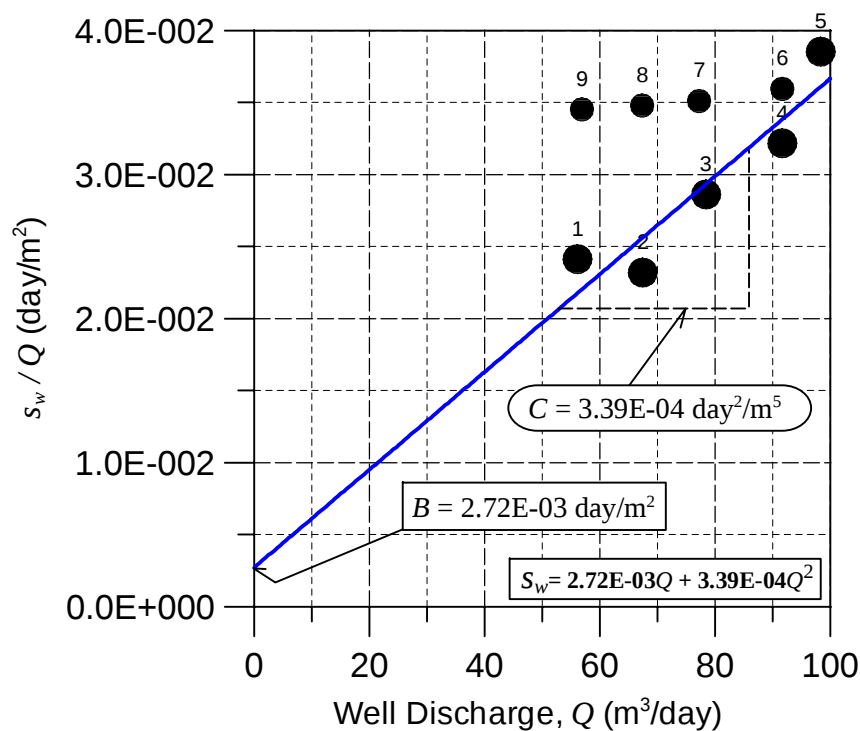
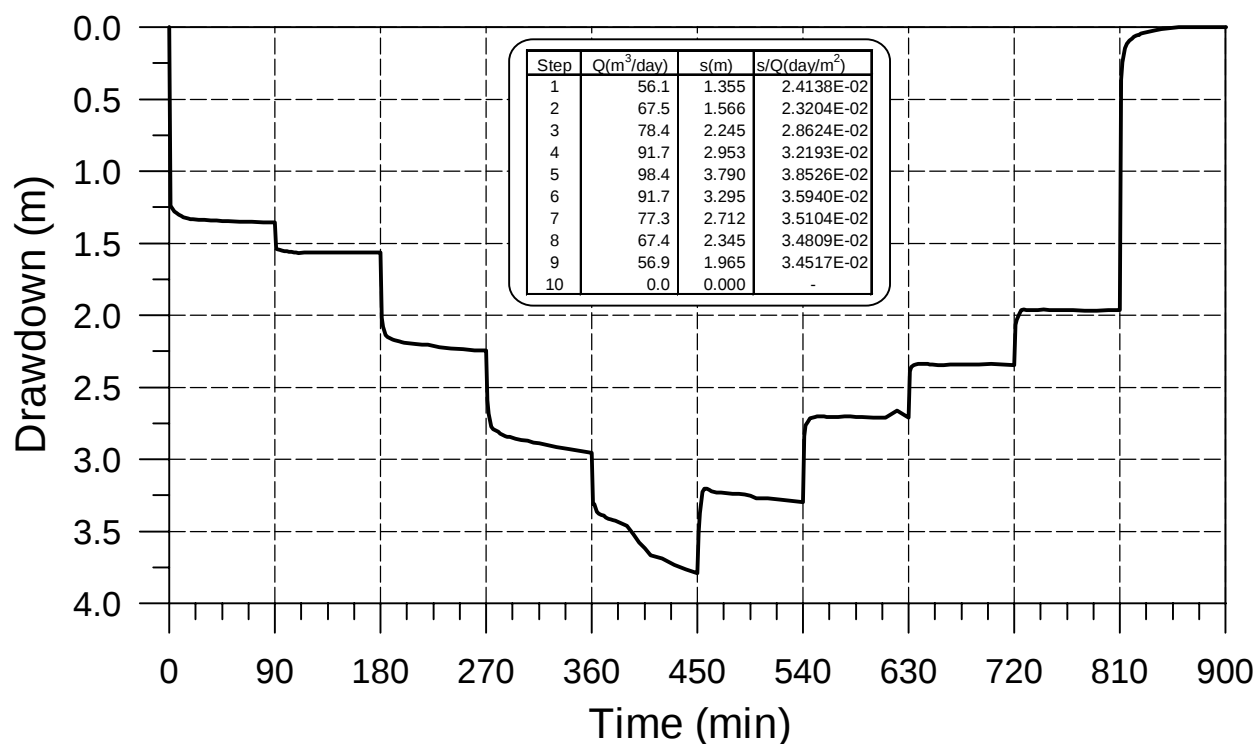
Drilled Depth: 58.8 m
 Well Depth: 41.0 m
 Screen Depth(s): 25.10 - 37.03 m
 Screen Length: 11.93 m
 Ground Elevation: 18 m

Figure 4.2.4.25

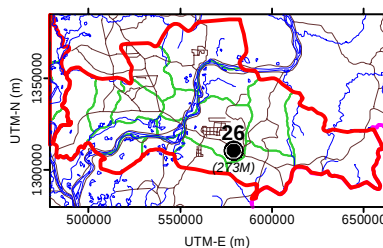
Results of Step-Drawdown Test at No.25 Test Well (Vil. No. 269M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Tboung Khmum
 Commune: Anhchaem
 Village: Chheu Teal Chrum
 Village No.: 273M

Long.-E(deg): 105.7263
 Lati.-N(deg): 11.8544
 UTM-E(m): 579114
 UTM-N(m): 1310560

WELL SPECIFICATION

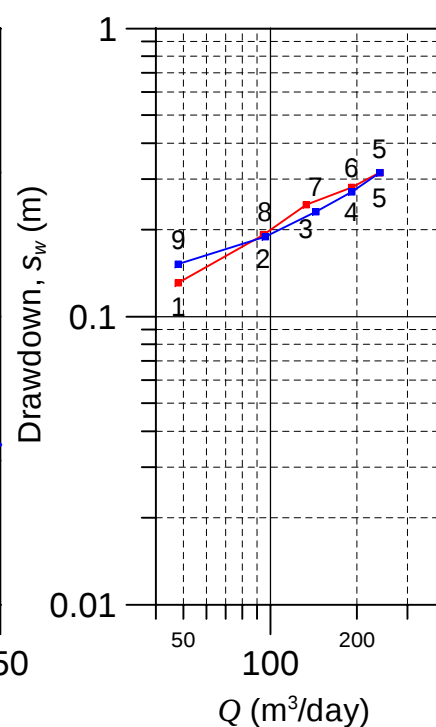
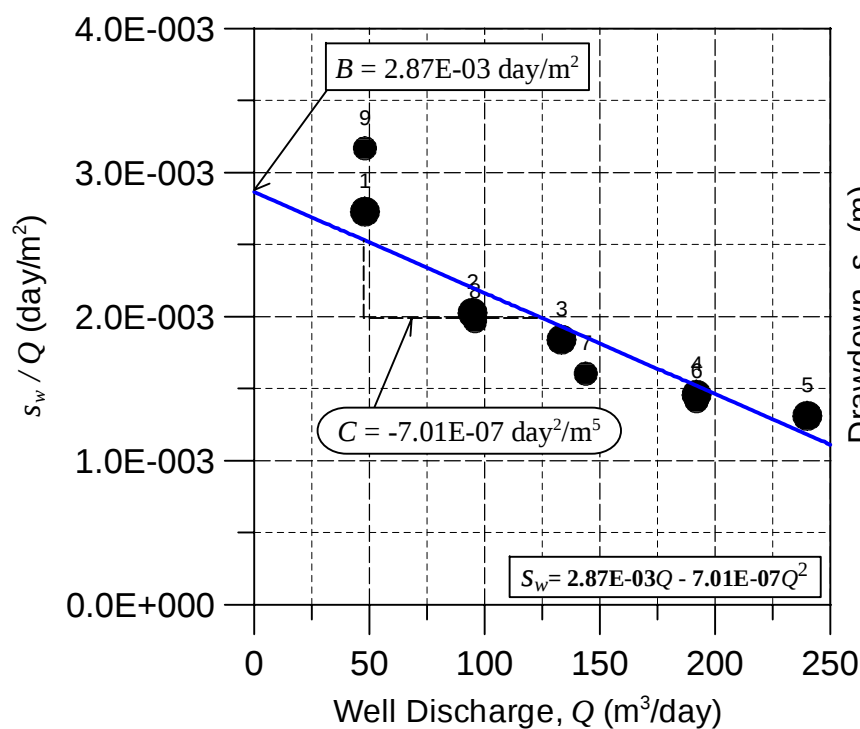
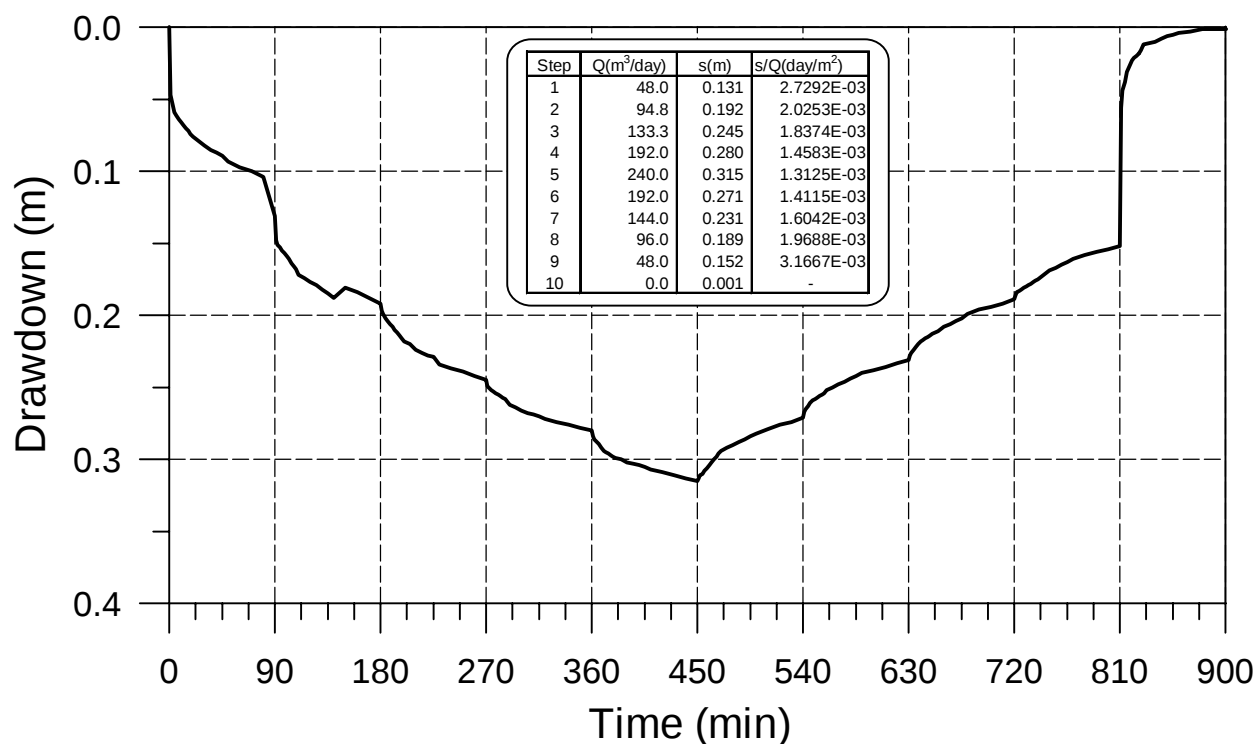
Drilled Depth: 35.0 m
 Well Depth: 23.25 m
 Screen Depth(s): 11.08 - 19.00 m
 Screen Length: 7.92 m
 Ground Elevation: 17 m

Figure 4.2.4.26

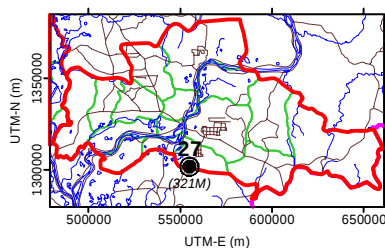
Results of Step-Drawdown Test at No.26 Test Well (Vil. No. 273M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Ou Reang Ov
 Commune: Kong Chey
 Village: Cheung Voat
 Village No.: 321M

Long.-E(deg): 105.5054
 Lati.-N(deg): 11.7758
 UTM-E(m): 555065
 UTM-N(m): 1301813

WELL SPECIFICATION

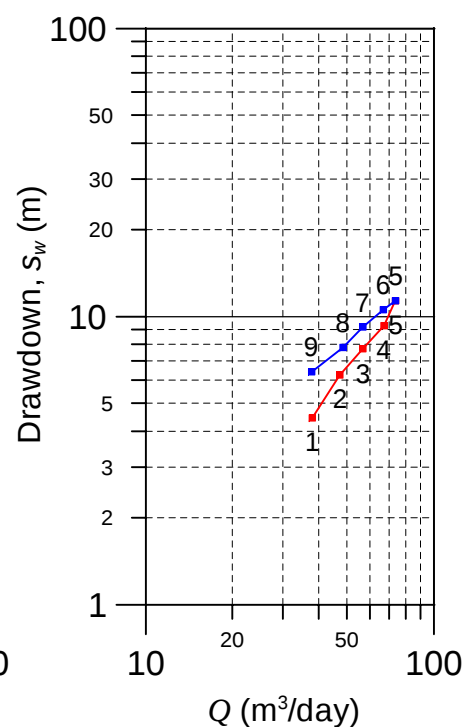
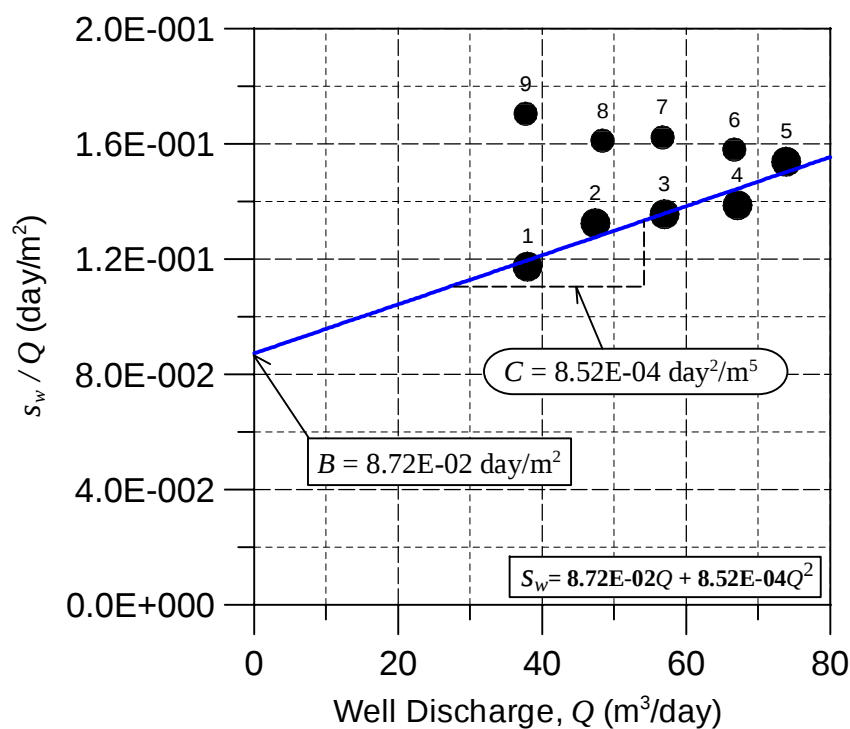
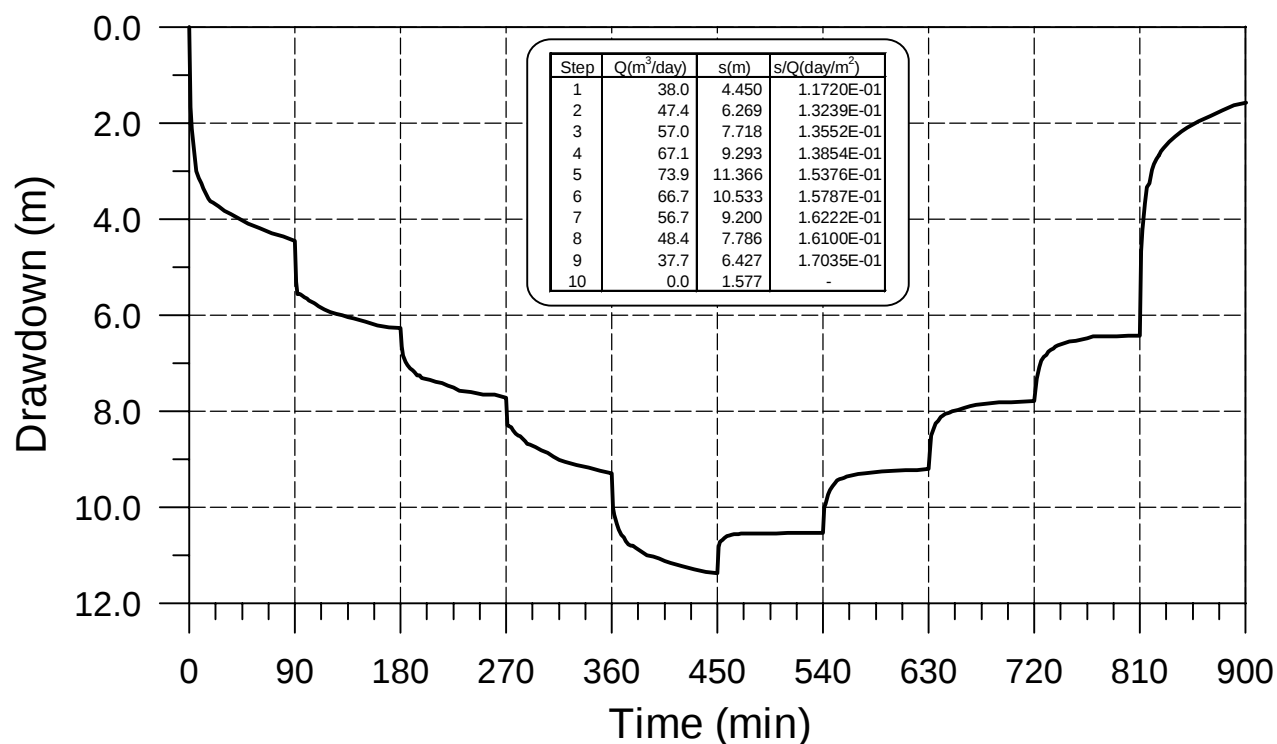
Drilled Depth: 100.0 m
 Well Depth: 93.0 m
 Screen Depth(s): 49.44 - 89.04 m
 Screen Length: 23.76 m
 Ground Elevation: 16 m

Figure 4.2.4.27

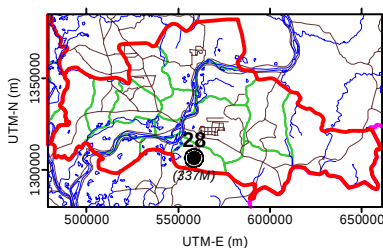
Results of Step-Drawdown Test at No.27 Test Well (Vil. No. 321M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Ou Reang Ov
 Commune: Tuol Sophy
 Village: Thma Da Lech
 Village No.: 337M

Long.-E(deg): 105.5383
 Lati.-N(deg): 11.8188
 UTM-E(m): 558639
 UTM-N(m): 1306583

WELL SPECIFICATION

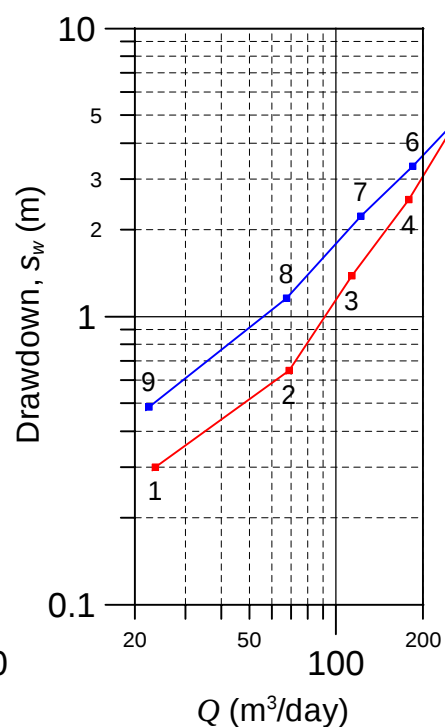
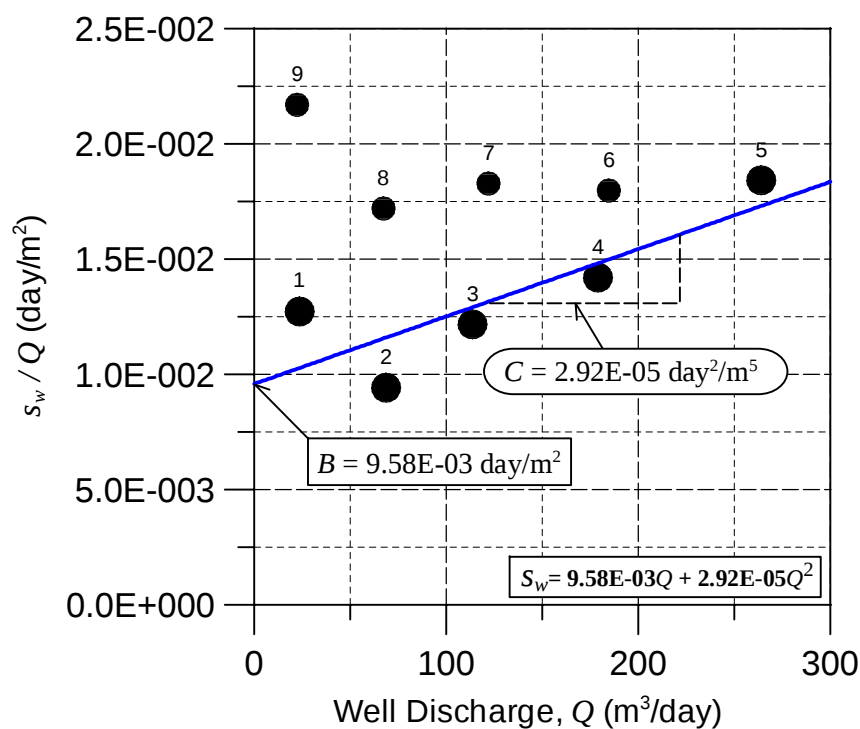
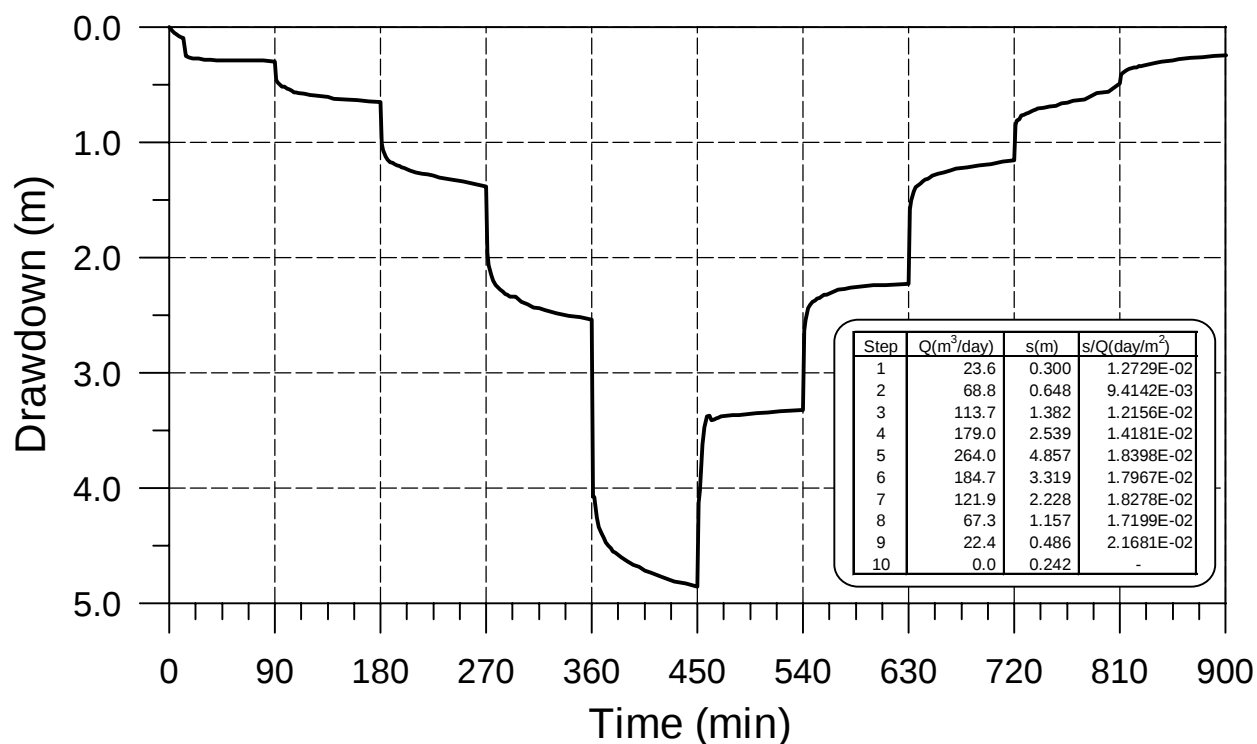
Drilled Depth: 39.0 m
 Well Depth: 38.4 m
 Screen Depth(s): 18.125 - 36.00 m
 Screen Length: 17.88 m
 Ground Elevation: 50 m

Figure 4.2.4.28

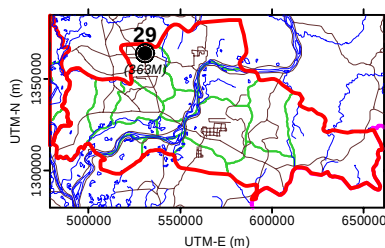
Results of Step-Drawdown Test at
 No.28 Test Well (Vil. No. 337M)

THE STUDY ON GROUNDWATER DEVELOPMENT
 IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham
 District: Chamkar Leu
 Commune: Lvea Leau
 Village: Lvea Cheung
 Village No.: 363M

Long.-E(deg): 105.2839
 Latit.-N(deg): 12.3396
 UTM-E(m): 530872
 UTM-N(m): 1364129

WELL SPECIFICATION

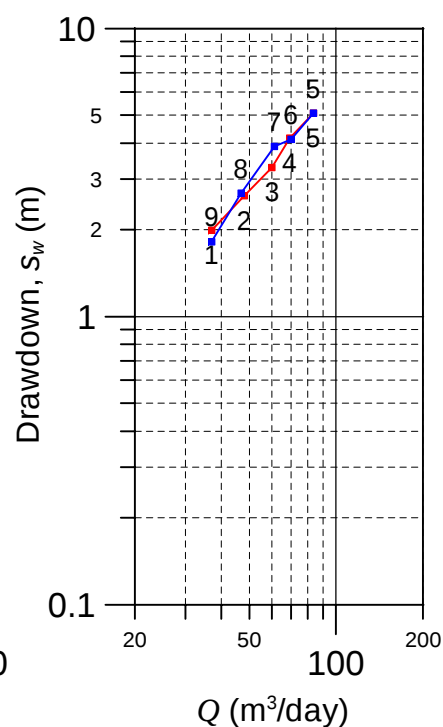
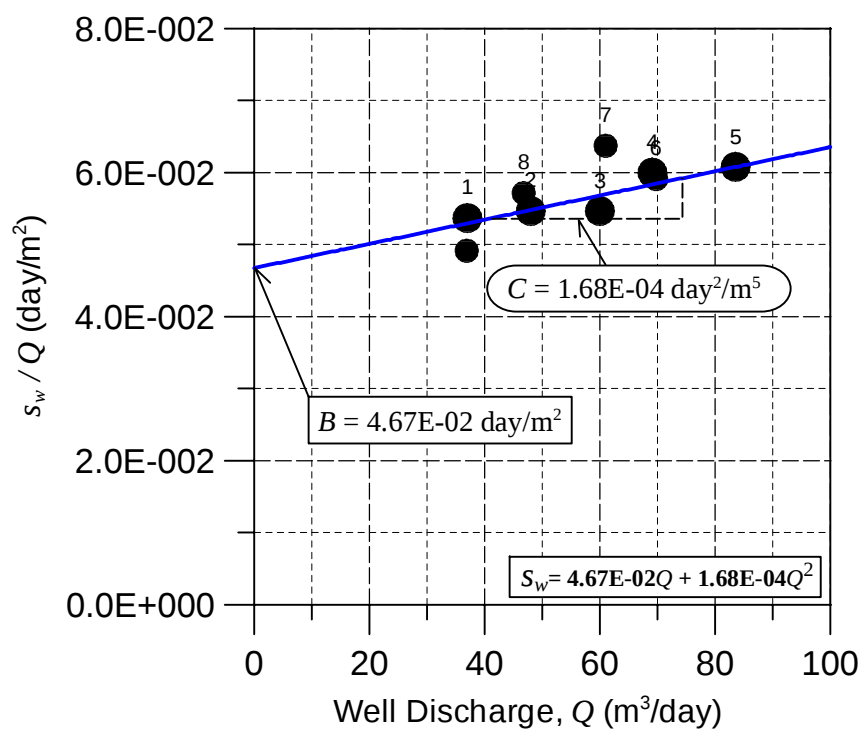
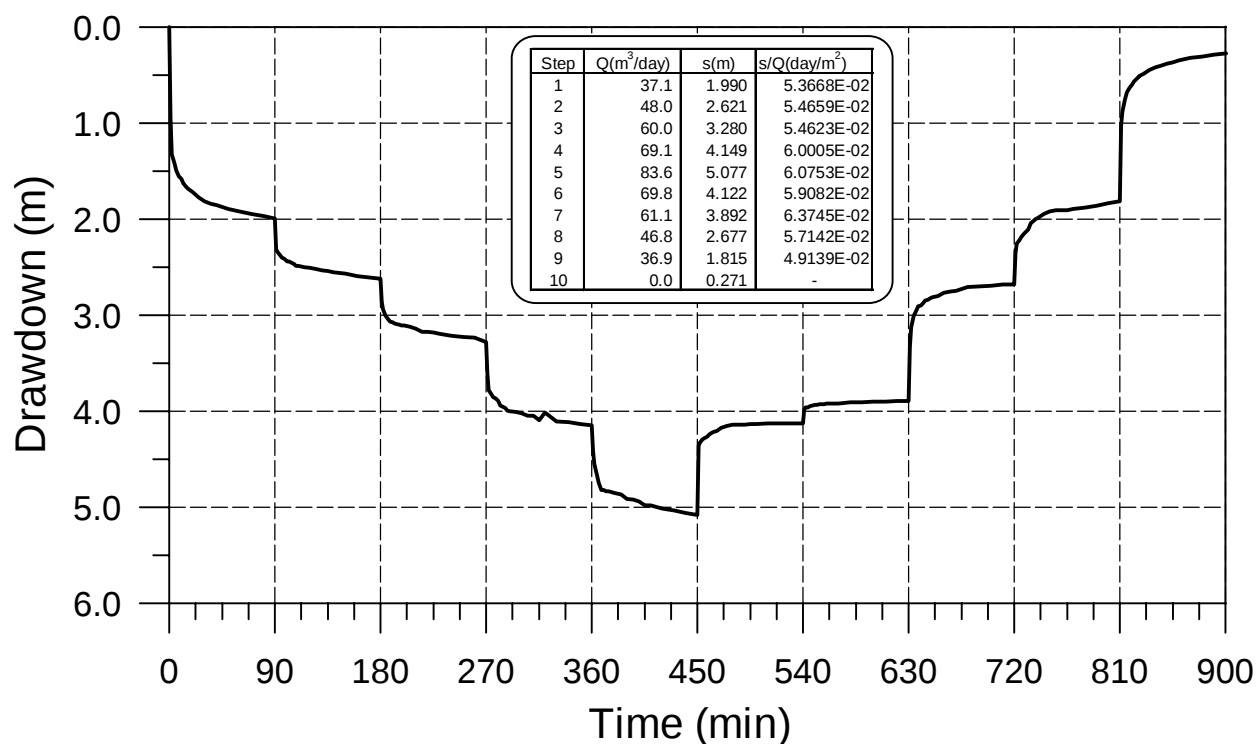
Drilled Depth: 60.0 m
 Well Depth: 46.0 m
 Screen Depth(s): 26.20 - 42.04 m
 Screen Length: 15.84 m
 Ground Elevation: 43 m

Figure 4.2.4.29

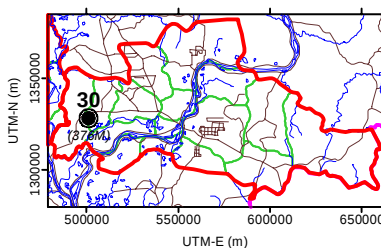
Results of Step-Drawdown Test at No.29 Test Well (Vil. No. 363M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



LOCATION MAP



WELL LOCATION

Province: Kg. Cham Long.-E(deg): 105.0112
 District: Cheung Prey Latl.-N(deg): 12.0156
 Commune: Khnor Dambang UTM-E(m): 501215
 Village: Knaor Dambang UTM-N(m): 1328281
 Village No.: 376M

WELL SPECIFICATION

Drilled Depth: 100.0 m
 Well Depth: 25.0 m
 Screen Depth(s): 13.08 - 23.00 m
 Screen Length: 7.92 m
 Ground Elevation: 12 m

Figure 4.2.4.30

Results of Step-Drawdown Test at No.30 Test Well (Vil. No. 376M)

THE STUDY ON GROUNDWATER DEVELOPMENT IN CENTRAL CAMBODIA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)