

Pumping Test Report Sheets

Governorate
of
Dahmar



Pumping Test Report Sheet

Well code: D-01 Site code: D-01 Site name: Elow Al Mikhlaf

District: Jabal Al Sharq Governorate: Dahmar

Target water source: New projected deep well Well depth: 273 m

Contractor: Mabkhout Al-Abraki

Hydrogeologist in charge Abudul Salam Sallam

Operator: Hosein Jammel

Date of start of the test: 30/7/2006 Date of end of the test: 3/8/2006

Pump type: Vertical pump Engine: Iveco aifo

Pump installation depth: 207 m Datum level: 0.55 m S.W.L.: G.L.-184.13 m

Step drawdown test

Date/hour started: 31/7/2006 4:40pm Date/hour finished: 1/8/2006 8:55am Total hours: 16:15

Yield (l/sec) 1st step 1.50 2nd step 3.00 3rd step 4.50 4th step 6.00 5th step 7.50

Water level before start the test (G.L.-m): 184.13

Water level after end of 5th step (G.L.-m): 187.57

Water level after recovery (G.L.-m): 184.13 Recovery hours 6:15

Constant discharge test

Date/hour started: 1/8/2006 9:54am Date/hour finished: 3/8/2006 5:54am Total hours: 43:00

Yield (l/sec) 2.40

Water level before start of the test (G.L.-m): 184.13

Water level after end of test (G.L.-m): 185.83

Water level after recovery (G.L.-m): 184.13 Recovery hours 19:00

Drawdown (m): 1.70

Revised by:

Name :

Date:

Provisional Step Drawdown Test (1/2)

Well Code: D-01 Site code: D-01 Pump on date/hour: 30/7/2006 11:28pm
 Site name: Elow Al Mikhlaf Pump off date/hour: 31/7/2006 1:58am
 District: Jabal Al Sharq End of recovery hour: 31/7/2006 9:10am
 Governorate Dahmar S.W.L (m): 184.68

Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hosein Jammel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	184.68	1.30	184.88	2.60	185.18	3.90	185.48	5.20	185.86	6.50	186.32
0.5	185.00		184.88		185.24		185.51		186.97		186.00
1.0	184.90		184.89		185.26		185.50		186.02		184.91
1.5	184.86		185.15		185.27		185.52		186.03		184.53
2.0	184.87		185.20		185.33		185.57		186.04		185.23
2.5	184.87		185.21		185.29		185.56		186.05		185.35
3.0	184.84		185.22		185.31		185.60		186.05		185.37
3.5	184.81		185.19		185.34		185.68		186.06		185.43
4.0	184.78		185.20		185.36		185.69		186.05		185.38
4.5	184.81		185.15		185.35		185.70		186.06		185.36
5.0	184.78		185.13		185.36		185.70		186.11		185.40
6.0	184.79		185.10		185.41		185.71		186.14		185.36
7.0	184.77		185.12		185.42		185.73		186.17		185.35
8.0	184.80		185.10		185.40		185.74		186.16		185.34
9.0	184.78		185.08		185.39		185.75		186.14		185.34
10.0	184.77		185.12		185.39		185.75		186.17		185.33
12.0	184.78		185.13		185.41		185.76		186.18		185.31
14.0	184.78		185.17		185.41		185.79		186.21		185.30
16.0	184.82		185.18		185.40		185.81		186.22		185.29
18.0	184.85		185.19		185.41		185.80		186.23		185.28
20.0	184.84		185.19		185.42		185.82		186.25		185.27
22.0	184.86		185.15		185.43		185.81		186.26		185.26
24.0	184.86		185.16		185.43		185.85		186.28		185.25
26.0	184.85		185.16		185.45		185.85		186.29		185.24
28.0	184.88		185.18		185.46		185.85		186.30		185.23
30.0	184.88		185.18		185.48		185.86		186.32		185.22
60.0											185.14
90.0											185.06
120.0											185.00
150.0											184.96
180.0											184.93
210.0											184.90
240.0											184.88
270.0											184.85
300.0											184.83
330.0											184.80
360.0											184.77
390.0											184.74
420.0											184.70
432.0											184.68

Step Drawdown Test (1/2)

Well Code: D-01 Site code: D-01
 Site name: Elow Al Mikhlaf
 District: Jabal Al Sharq
 Governorate Dahmar

Pump on date/hour: 31/7/2006 4:40pm
 Pump off date/hour: 1/8/2006 2:40am
 End of recovery hour: 1/8/2006 8:55am
 S.W.L (m): 184.68

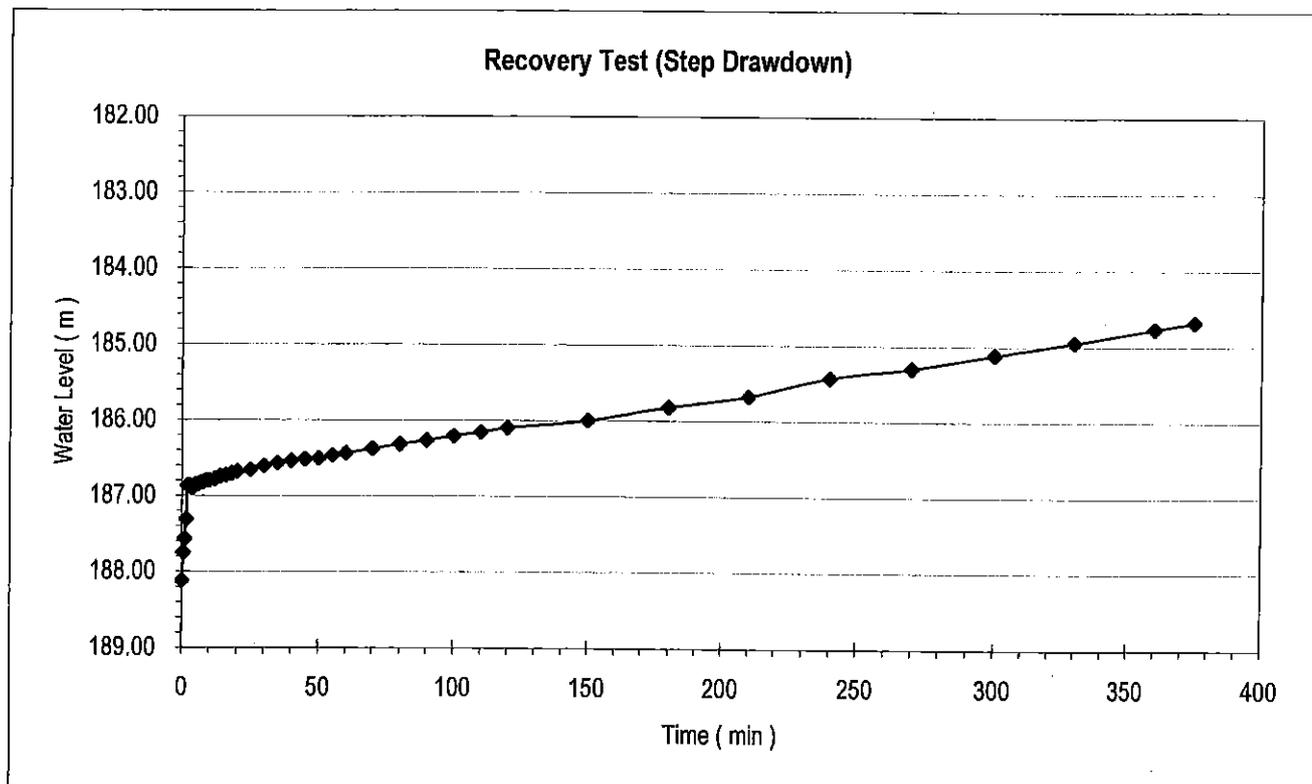
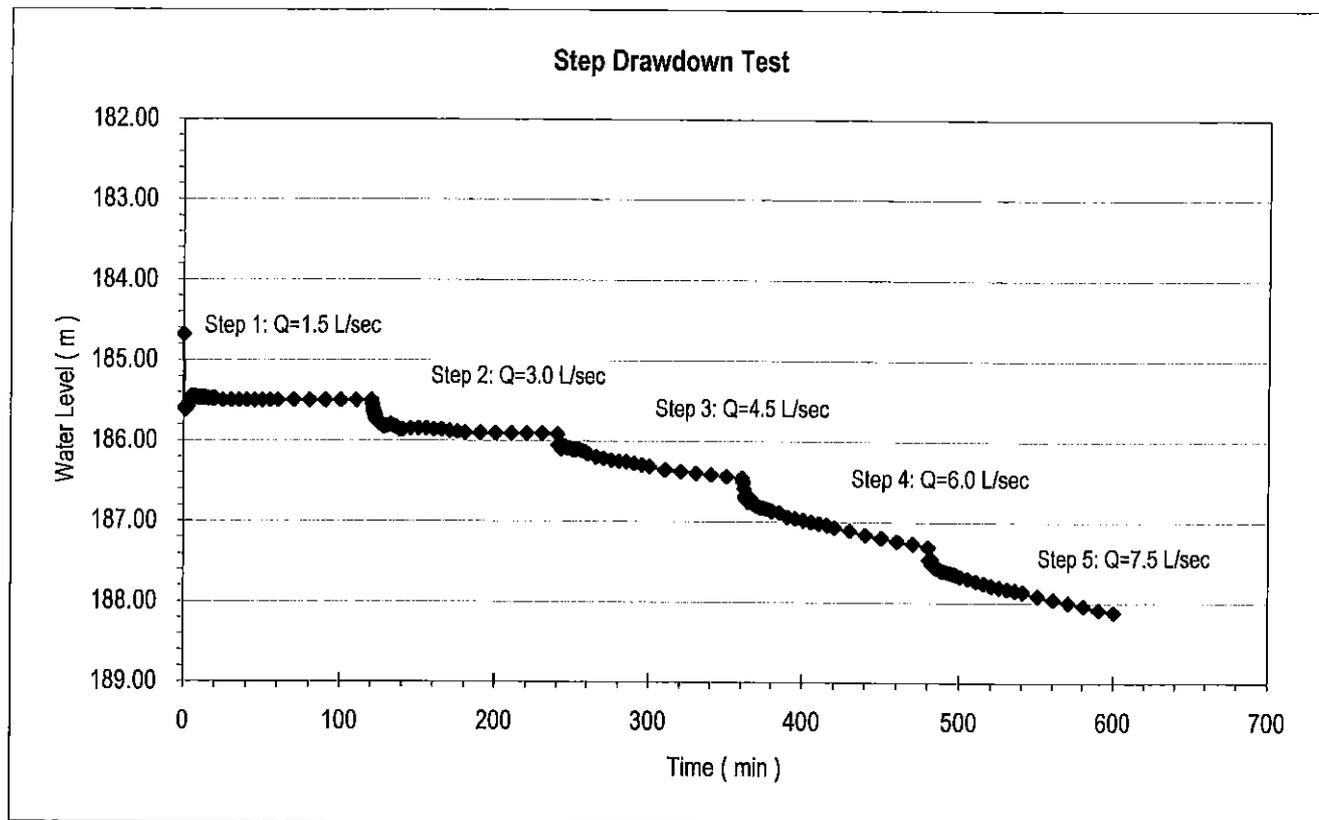
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hosein Jammel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	184.68	1.50	185.50	3.00	185.92	4.50	186.46	6.00	187.31	7.50	188.12
0.5	185.60		185.55		186.05		186.48		187.47		187.75
1.0	185.62		185.61		186.06		186.52		187.47		187.57
1.5	185.59		185.64		186.06		186.59		187.47		187.31
2.0	185.58		185.68		186.08		186.68		187.47		186.87
2.5	185.57		185.70		186.10		186.72		187.52		186.86
3.0	185.54		185.74		186.08		186.72		187.54		186.87
3.5	185.53		185.76		186.07		186.74		187.55		186.89
4.0	185.50		185.76		186.08		186.75		187.56		186.89
4.5	185.47		185.78		186.07		186.76		187.56		186.88
5.0	185.45		185.79		186.08		186.75		187.57		186.85
6.0	185.46		185.80		186.09		186.71		187.58		186.85
7.0	185.45		185.81		186.09		186.77		187.59		186.83
8.0	185.47		185.83		186.09		186.78		187.60		186.82
9.0	185.47		185.82		186.10		186.79		187.61		186.80
10.0	185.47		185.82		186.11		186.80		187.61		186.80
12.0	185.47		185.80		186.11		186.82		187.63		186.78
14.0	185.47		185.82		186.11		186.83		187.63		186.75
16.0	185.48		185.84		186.12		186.84		187.64		186.73
18.0	185.48		185.86		186.14		186.85		187.66		186.71
20.0	185.48		185.86		186.16		186.87		187.68		186.68
25.0	185.50		185.85		186.20		186.89		187.70		186.66
30.0	185.50		185.85		186.22		186.94		187.73		186.61
35.0	185.50		185.85		186.24		186.96		187.76		186.57
40.0	185.50		185.86		186.25		186.98		187.79		186.54
45.0	185.50		185.86		186.26		187.00		187.81		186.52
50.0	185.50		185.88		186.28		187.02		187.83		186.51
55.0	185.50		185.89		186.30		187.04		187.85		186.47
60.0	185.50		185.90		186.32		187.07		187.87		186.44
70.0	185.50		185.90		186.36		187.11		187.92		186.38
80.0	185.50		185.91		186.38		187.16		187.96		186.32
90.0	185.50		185.91		186.40		187.20		188.00		186.27
100.0	185.50		185.91		186.42		187.24		188.04		186.21
110.0	185.50		185.91		186.44		187.27		188.09		186.16
120.0	185.50		185.92		186.46		187.31		188.12		186.10
150.0											186.00
180.0											185.82
210.0											185.68
240.0											185.43
270.0											185.30

Step Drawdown Test

Well Code: D-01
Site Code: D-01
S.W.L. : 184.68 m

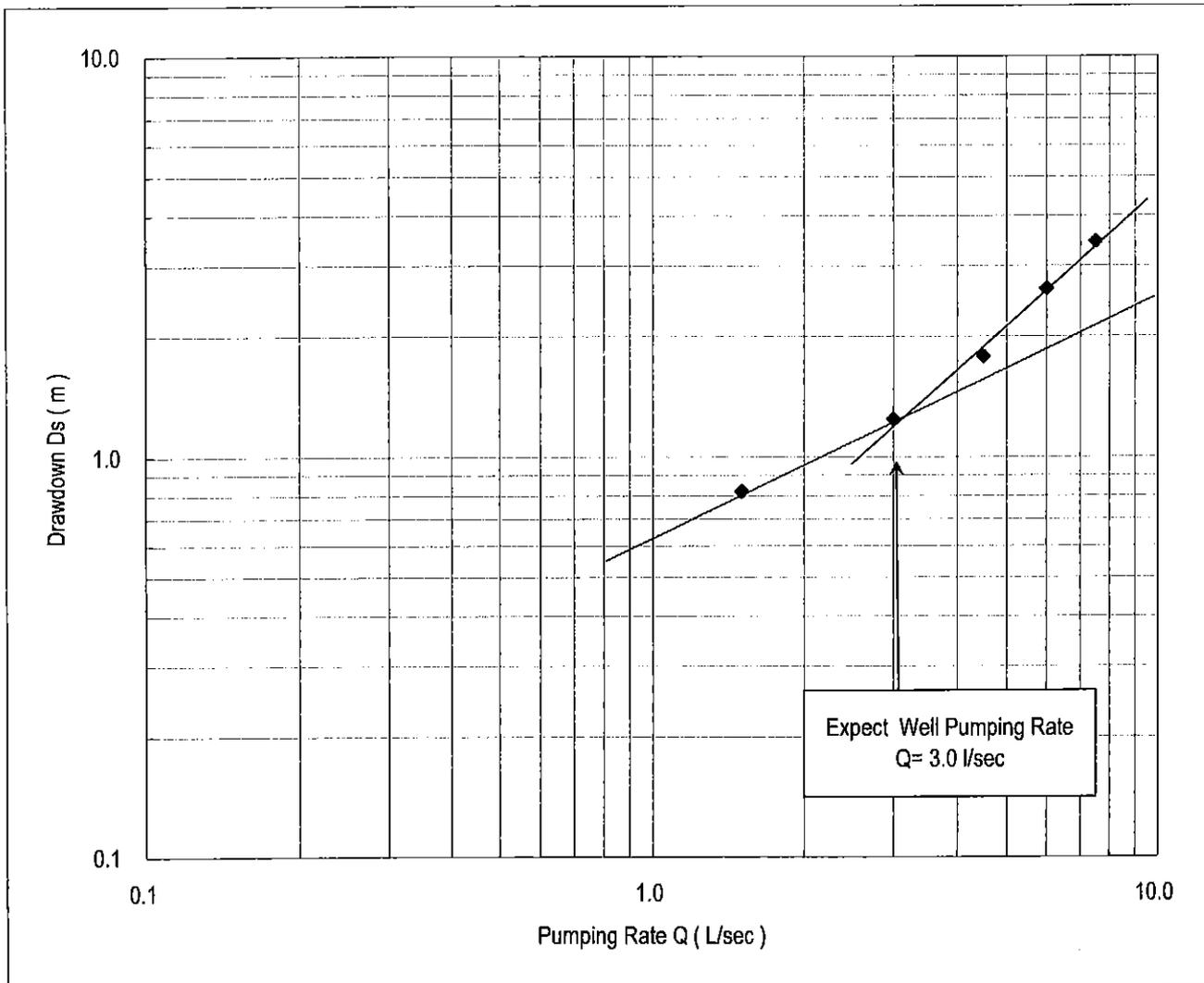
Site Name: Elow Al Mikhlaf



Step Drawdown Test

Well Code: D-01
 Site Code: D-01
 S.W.L. : 184.68 m

Site Name: Elow Al Mikhlaf



Step	Q (l/sec)	D.W.L. (m)	D_s (m)
1	1.5	185.50	0.82
2	3.0	185.92	1.24
3	4.5	186.46	1.78
4	6.0	187.31	2.63
5	7.5	188.12	3.44

Constant Discharge & Recovery Test (1/2)

Well Code: D-01 Site code: D-01

Site name: Elow Al Mikhlaf

District: Jabal Al Sharq

Governorate: Dahmar

Pump on date/hour: 1/8/2006 9:54am

Pump off date/hour: 2/8/2006 9:54am

End of recovery hour: 3/8/2006 5:54am

Contractor: Mabkhout Al-Abraki

Hydrogeologist: Abudul Salam Sallam

Operator: Hosein Jammel

S.W.L (m): 184.68

D.W.L (m): 186.38

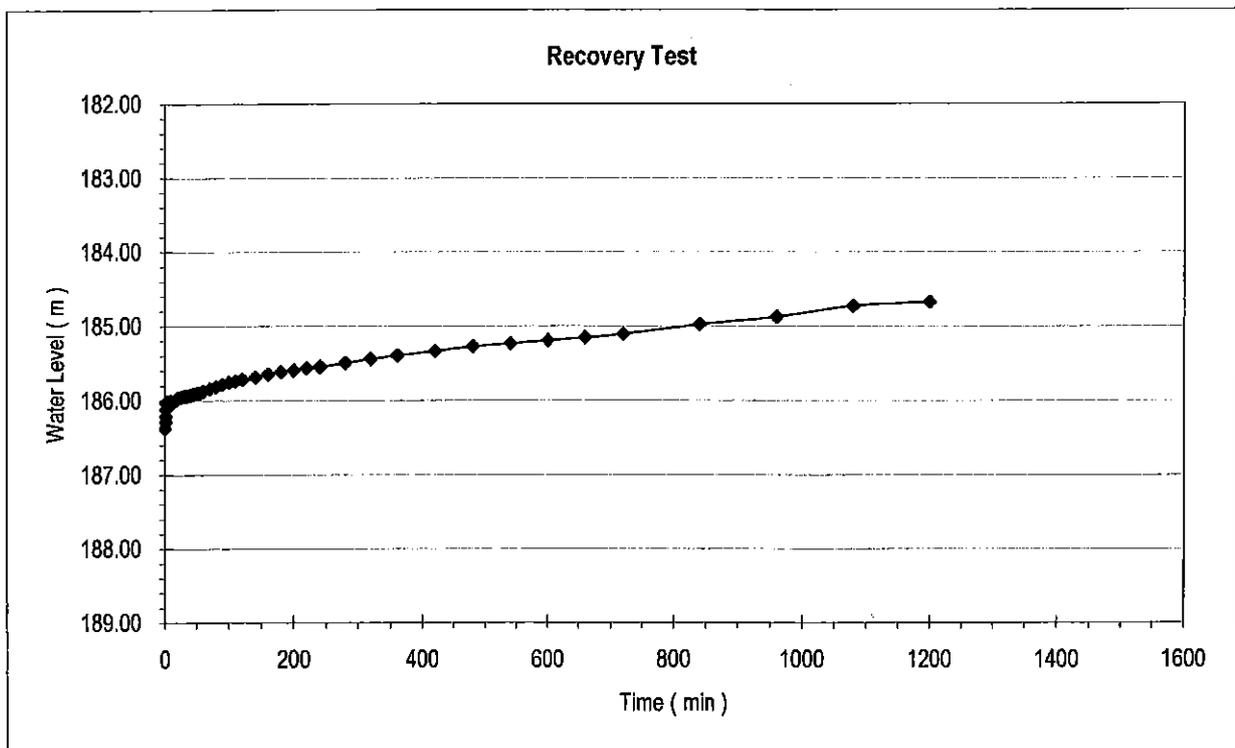
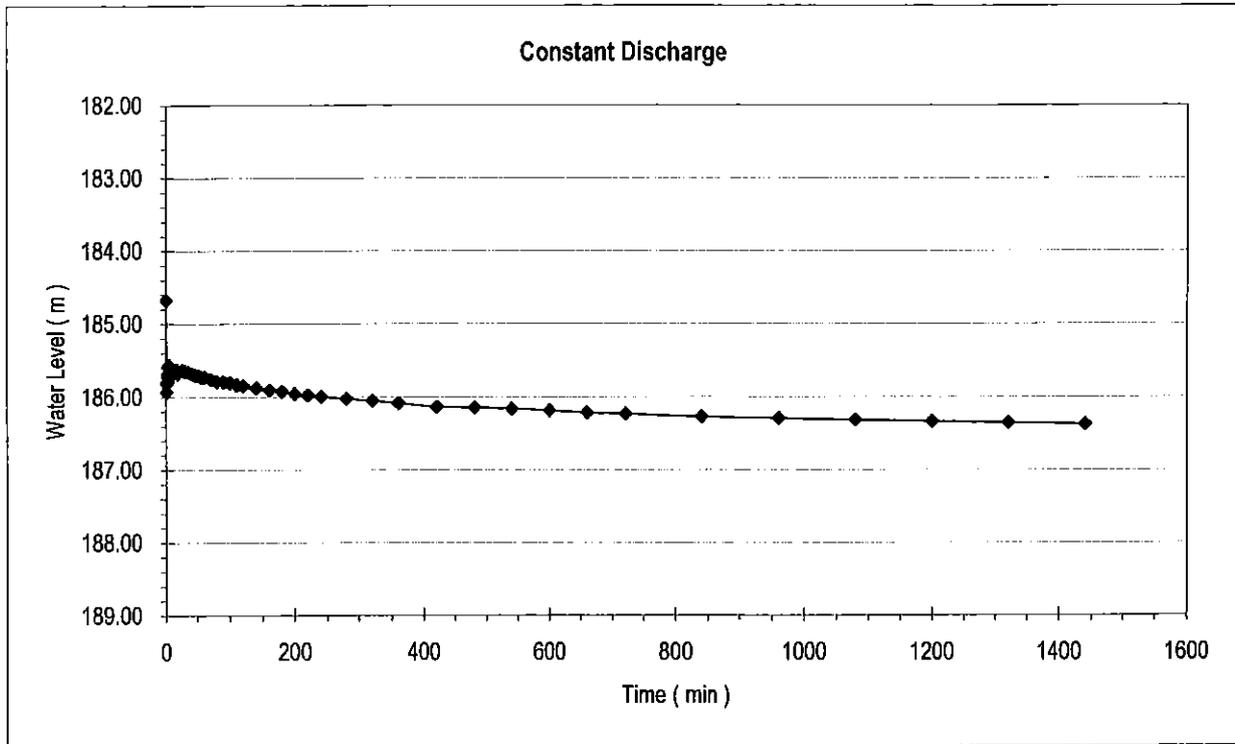
Yield (l/sec): 2.4

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (µS/cm)	
0.0	184.68	0.00		186.38	1.70		
0.5	185.93	1.25		186.30	1.61		
1.0	185.82	1.14		186.21	1.53		
1.5	185.81	1.13		186.13	1.44		
2.0	185.79	1.11		186.04	1.36		
2.5	185.72	1.04		186.03	1.35		
3.0	185.68	1.00		186.02	1.34		
3.5	185.59	0.91		186.02	1.34		
4.0	185.57	0.89		186.05	1.37		
4.5	185.59	0.91		186.07	1.39		
5.0	185.60	0.92		186.06	1.38		
6.0	185.59	0.91		186.08	1.40		
7.0	185.68	1.00		186.04	1.36		
8.0	185.69	1.01		186.03	1.35		
9.0	185.61	0.93		186.01	1.33		
10.0	185.62	0.94		186.03	1.35		
12.0	185.63	0.95		186.02	1.34		
14.0	185.65	0.97		186.02	1.34		
16.0	185.63	0.95		186.00	1.32		
18.0	185.68	1.00		185.99	1.31		
20.0	185.66	0.98		185.97	1.29		
25.0	185.64	0.96		185.96	1.28		
30.0	185.65	0.97		185.95	1.27		
35.0	185.66	0.98		185.94	1.26		
40.0	185.68	1.00		185.93	1.25		
45.0	185.70	1.02		185.92	1.24		
50.0	185.71	1.03		185.91	1.23		
55.0	185.73	1.05		185.90	1.22		
60.0	185.73	1.05		185.88	1.20	1030	

Constant Discharge Test

Well Code: D-01
Site Code: D-01
S.W.L. (m): 184.68
Yield (L/sec): 2.4

Site Name Elow Al Mikhlaf
D.W.L (m): 186.38 Drawdown (m): 1.70



Pumping Test Report Sheet

Well code: D-02 Site code: D-02 Site name: Hamal Bait Al Jabar
District: Jabal Al Sharq Governorate: Dahmar

Target water source: Existing projected deep well Well depth: 310 m

Contractor: Mabkhout Al-Abraki
Hydrogeologist in charge: Abudul Salam Sallam
Operator: Hezan Jameel

Date of start of the test: 27/7/2006 Date of end of the test: 30/7/2006
Pump type: Vertical pump Engine: Iveco aifo
Pump installation depth: 220 m Datum level: 0.80 m S.W.L.: G.L.-185.80 m

Step drawdown test

Date/hour started: 28/7/2006 10:00am Date/hour finished: 29/7/2006 3:30am Total hours: 17:30
Yield (l/sec) 1st step 0.90 2nd step 1.80 3rd step 2.70 4th step 3.60 5th step 4.50
Water level before start the test (G.L.-m): 185.80
Water level after end of 5th step (G.L.-m): 215.20
Water level after recovery (G.L.-m): 185.80 Recovery hours 7:30

Constant discharge test

Date/hour started: 29/7/2006 9:00am Date/hour finished: 30/7/2006 7:00pm Total hours: 30:00
Yield (l/sec) 3.50
Water level before start of the test (G.L.-m): 185.80
Water level after end of test (G.L.-m): 209.30
Water level after recovery (G.L.-m): 185.80 Recovery hours 10:00
Drawdown (m): 23.50

Revised by:

Name :

Date:

Step Drawdown Test (1/2)

Well Code: D-02 Site code: D-02
 Site name: Hamal Bait Al Jabar
 District: Jabal Al Sharq
 Governorate Dahmar

Pump on date/hour: 28/7/2006 10:00am
 Pump off date/hour: 28/7/2006 8:00pm
 End of recovery hour: 29/7/2006 3:30am
 S.W.L (m): 186.60

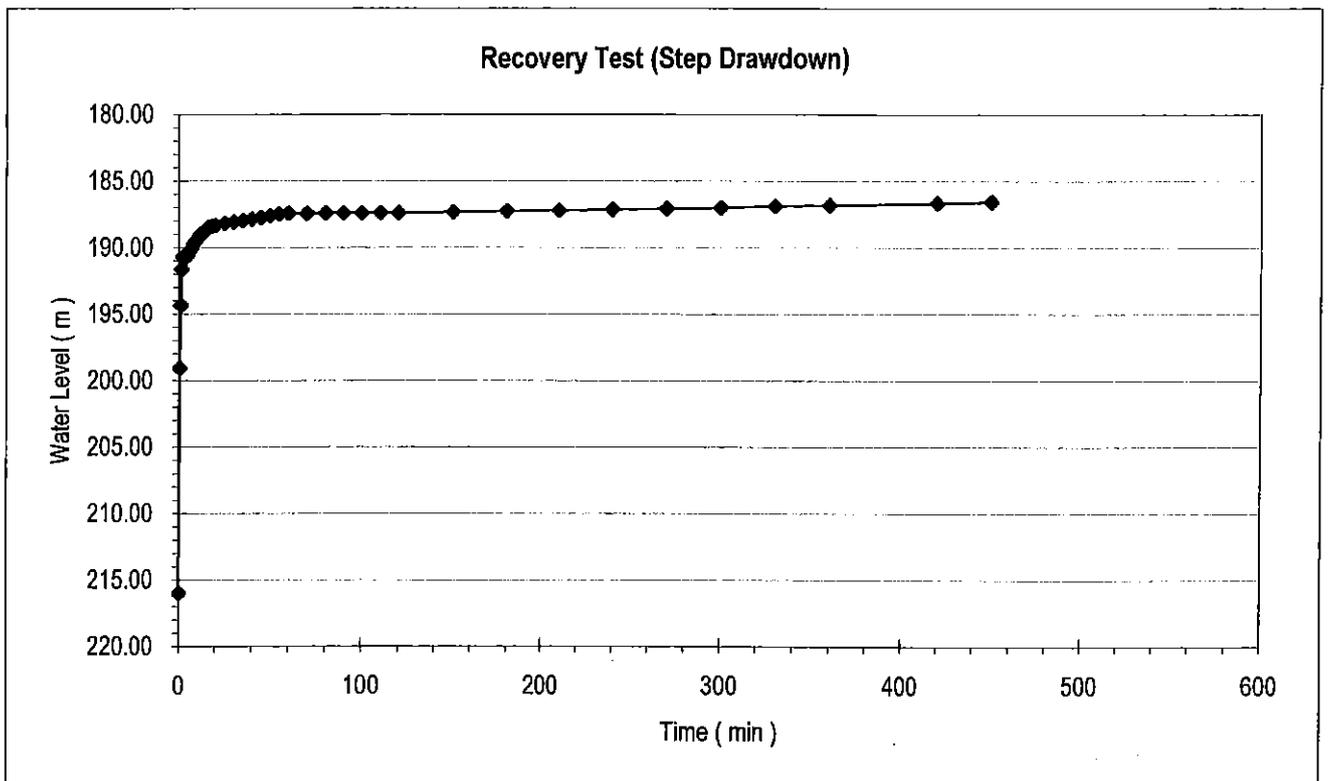
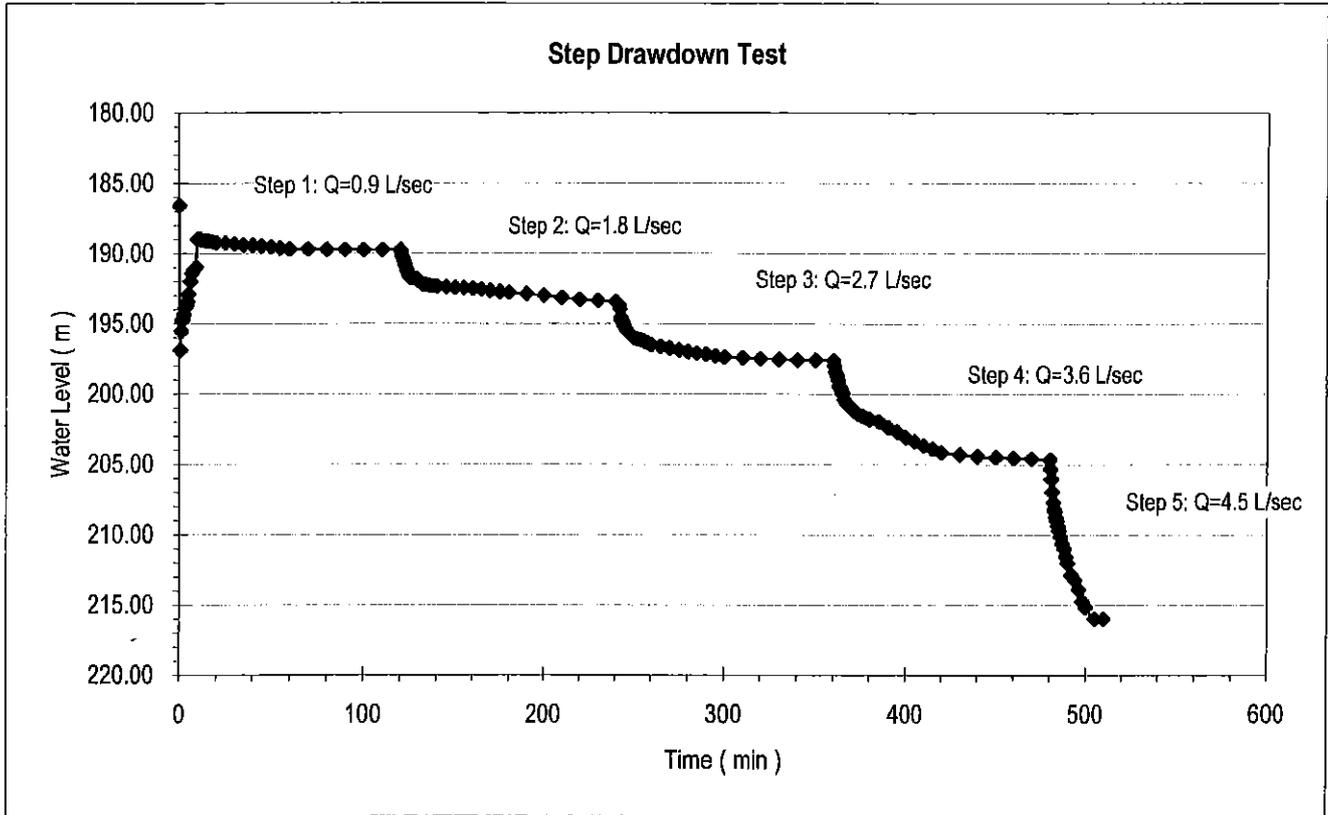
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hezan Jameel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	186.60	0.90	189.75	1.80	193.45	2.70	197.62	3.60	204.66	4.50	216.00
0.5	196.90		189.88		193.50		198.00		205.35		199.10
1.0	195.55		190.23		193.53		198.40		206.05		194.35
1.5	194.80		190.39		193.60		198.55		206.96		191.65
2.0	194.65		190.59		193.68		198.75		207.70		190.70
2.5	194.35		190.80		193.98		199.02		208.16		190.80
3.0	193.91		190.98		194.55		199.43		208.35		190.81
3.5	193.81		191.18		194.80		199.52		208.75		190.75
4.0	193.68		191.38		194.82		199.63		208.99		190.70
4.5	193.44		191.50		195.00		199.77		209.37		190.65
5.0	192.90		191.70		195.20		199.98		209.71		190.52
6.0	192.00		191.74		195.40		200.40		210.15		190.28
7.0	191.40		191.75		195.60		200.65		210.65		190.05
8.0	191.17		191.80		195.70		200.80		211.00		189.70
9.0	190.97		191.83		195.85		200.85		211.54		189.55
10.0	189.00		191.97		196.00		200.94		212.03		189.35
12.0	189.03		192.20		196.10		201.30		212.87		189.00
14.0	189.08		192.25		196.17		201.46		213.23		188.80
16.0	189.13		192.30		196.28		201.57		213.88		188.50
18.0	189.18		192.35		196.39		201.68		214.74		188.43
20.0	189.23		192.37		196.52		201.79		215.17		188.35
25.0	189.24		192.40		196.63		201.95		215.97		188.21
30.0	189.33		192.45		196.75		202.35		216.00		188.10
35.0	189.39		192.48		196.88		202.68				188.00
40.0	189.43		192.52		197.00		203.08				187.90
45.0	189.47		192.56		197.11		203.37				187.78
50.0	189.55		192.67		197.19		203.66				187.66
55.0	189.63		192.74		197.29		203.88				187.50
60.0	189.70		192.79		197.39		204.17				187.46
70.0	189.71		192.89		197.44		204.30				187.45
80.0	189.72		193.00		197.48		204.43				187.45
90.0	189.73		193.17		197.55		204.50				187.44
100.0	189.74		193.29		197.59		204.55				187.44
110.0	189.74		193.37		197.60		204.60				187.43
120.0	189.75		193.45		197.62		204.66				187.43
150.0											187.36
180.0											187.30
210.0											187.23
240.0											187.16
270.0											187.09

Step Drawdown Test

Well Code: D-02
Site Code: D-02
S.W.L. : 186.60 m

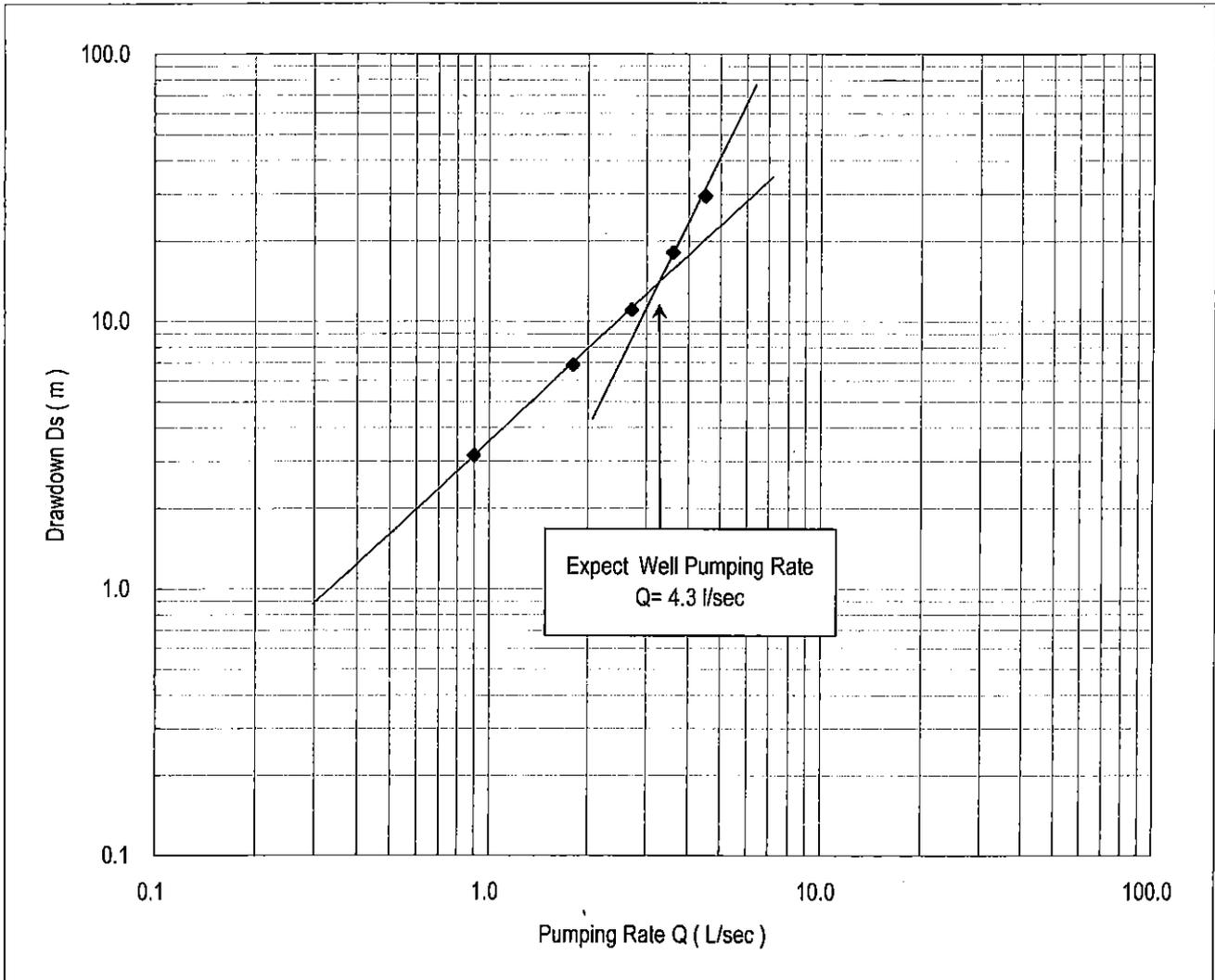
Site Name: Hamal Bait Al Jabar



Step Drawdown Test

Well Code: D-02
 Site Code: D-02
 S.W.L. : 186.60 m

Site Name: Hamal Bait Al Jabar



Step	Q (l/sec)	D.W.L.(m)	D_s (m)
1	0.9	189.75	3.15
2	1.8	193.45	6.85
3	2.7	197.62	11.02
4	3.6	204.66	18.06
5	4.5	216.00	29.40

Constant Discharge & Recovery Test (1/2)

Well Code: D-02 Site code: D-02

Site name: Hamal Bait Al Jabar

Pump on date/hour: 29/7/2006 9:00am

District: Jabal Al Sharq

Pump off date/hour: 30/7/2006 9:00am

Governorate: Dahmar

End of recovery hour: 30/7/2006 7:00pm

Contractor: Mabkhout Al-Abraki

S.W.L (m): 186.60

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 210.10

Operator: Hezan Jameel

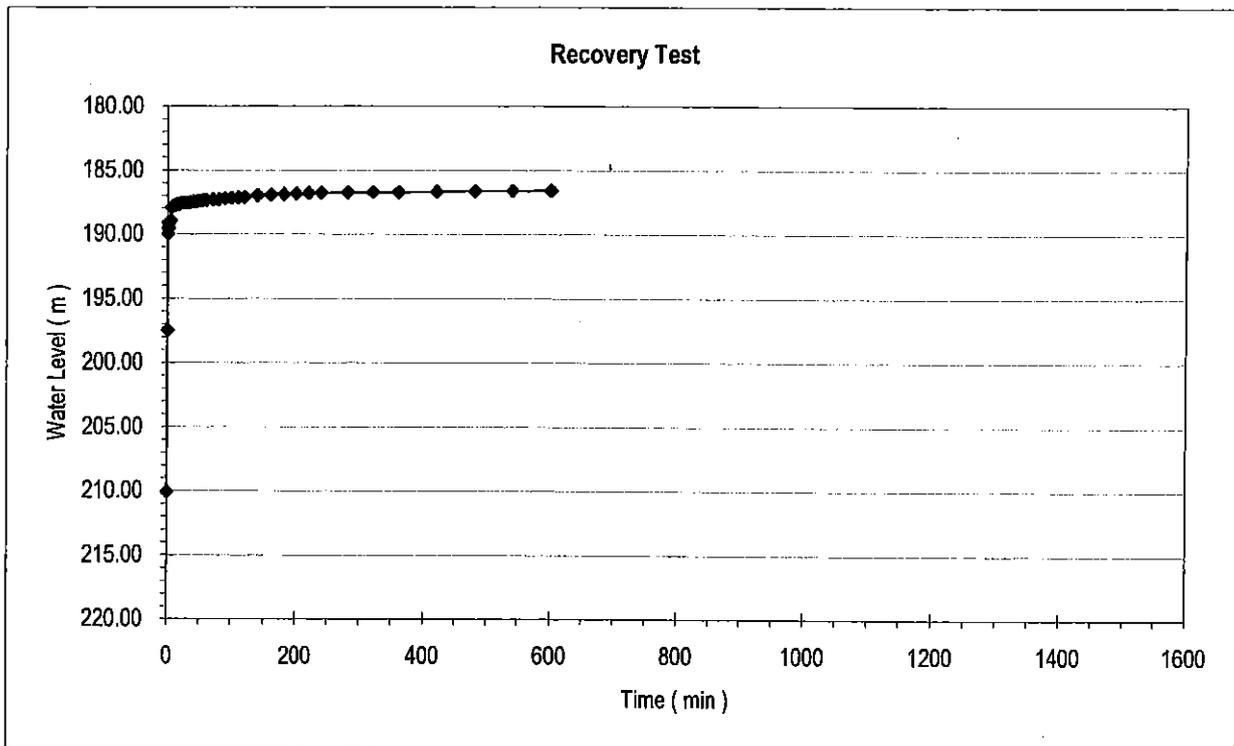
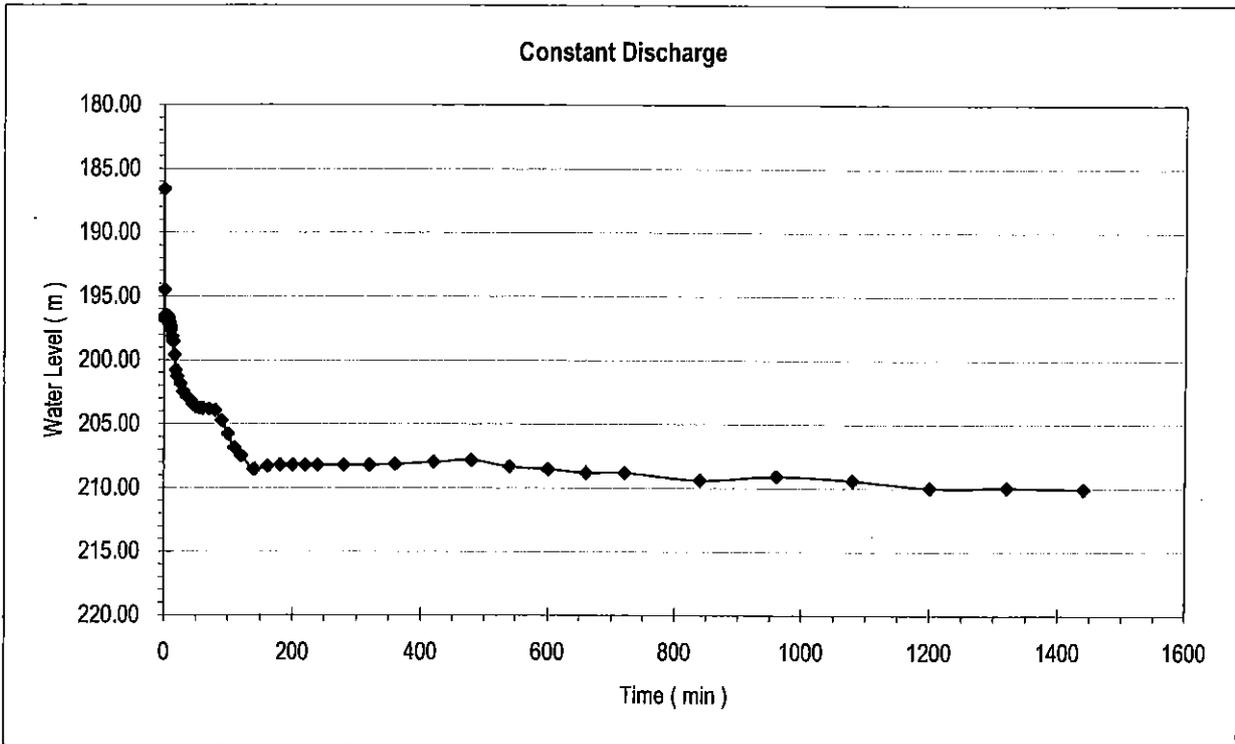
Yield (l/sec): 3.5

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (µS/cm)	
0.0	186.60	0.00		210.10	23.50		
0.5	194.50	7.90		197.50	10.90		
1.0	196.80	10.20		190.00	3.40		
1.5	196.68	10.08		189.57	2.97		
2.0	196.50	9.90		189.17	2.57		
2.5	196.52	9.92		189.09	2.49		
3.0	196.54	9.94		189.05	2.45		
3.5	196.56	9.96		189.03	2.43		
4.0	196.58	9.98		189.03	2.43		
4.5	196.60	10.00		189.00	2.40		
5.0	196.55	9.95		188.98	2.38		
6.0	196.70	10.10		187.94	1.34		
7.0	197.00	10.40		187.90	1.30		
8.0	197.20	10.60		187.87	1.27		
9.0	197.35	10.75		187.84	1.24		
10.0	197.65	11.05		187.80	1.20		
12.0	198.15	11.55		187.77	1.17		
14.0	198.55	11.95		187.73	1.13		
16.0	199.60	13.00		187.70	1.10		
18.0	200.80	14.20		187.67	1.07		
20.0	201.30	14.70		187.63	1.03		
25.0	201.90	15.30		187.61	1.01		
30.0	202.50	15.90		187.57	0.97		
35.0	202.90	16.30		187.54	0.94		
40.0	203.15	16.55		187.50	0.90		
45.0	203.50	16.90		187.47	0.87		
50.0	203.69	17.09		187.44	0.84		
55.0	203.77	17.17		187.41	0.81		
60.0	203.80	17.20		187.39	0.79	626	

Constant Discharge Test

Well Code: D-02
Site Code: D-02
S.W.L. (m): 186.60
Yield (L/sec): 3.5

Site Name Hamal Bait Al Jabar
D.W.L (m): 210.10 Drawdown (m): 23.50



Pumping Test Report Sheet

Well code: D-03 Site code: D-03 Site name: Hegrat Al A'asham

District: Jabal Al Sharq Governorate: Dahmar

Target water source: New projected deep well Well depth: 320 m

Contractor: Mabkhout Al-Abraki

Hydrogeologist in charge: Abudul Salam Sallam

Operator: Al Raboi

Date of start of the test: 30/7/2006 Date of end of the test: 3/8/2006

Pump type: Vertical pump Engine: Iveco aifo

Pump installation depth: 249 m Datum level: 0.55 m S.W.L.: G.L.-163.05 m

Step drawdown test

Date/hour started: 31/7/2006 8:30am Date/hour finished: 1/8/2006 7:30am Total hours: 13:00

Yield (l/sec) 1st step 1.30 2nd step 2.60 3rd step 3.90 4th step 5.20 5th step 6.50

Water level before start the test (G.L.-m): 163.05

Water level after end of 5th step (G.L.-m): 181.31

Water level after recovery (G.L.-m): 163.05 Recovery hours 13:00

Constant discharge test

Date/hour started: 1/8/2006 8:00am Date/hour finished: 3/8/2006 9:00am Total hours: 49:00

Yield (l/sec) 5.00

Water level before start of the test (G.L.-m): 163.05

Water level after end of test (G.L.-m): 183.95

Water level after recovery (G.L.-m): 163.05 Recovery hours 25:00

Drawdown (m): 20.90

Revised by:

Name :

Date:

Step Drawdown Test (1/2)

Well Code: D-03 Site code: D-03 Pump on date/hour: 31/7/2006 8:30am
 Site name: Hegrat Al A'asham Pump off date/hour: 31/7/2006 6:30pm
 District: Jabal Al Sharq End of recovery hour: 1/8/2006 7:30am
 Governorate Dahmar S.W.L (m): 163.60

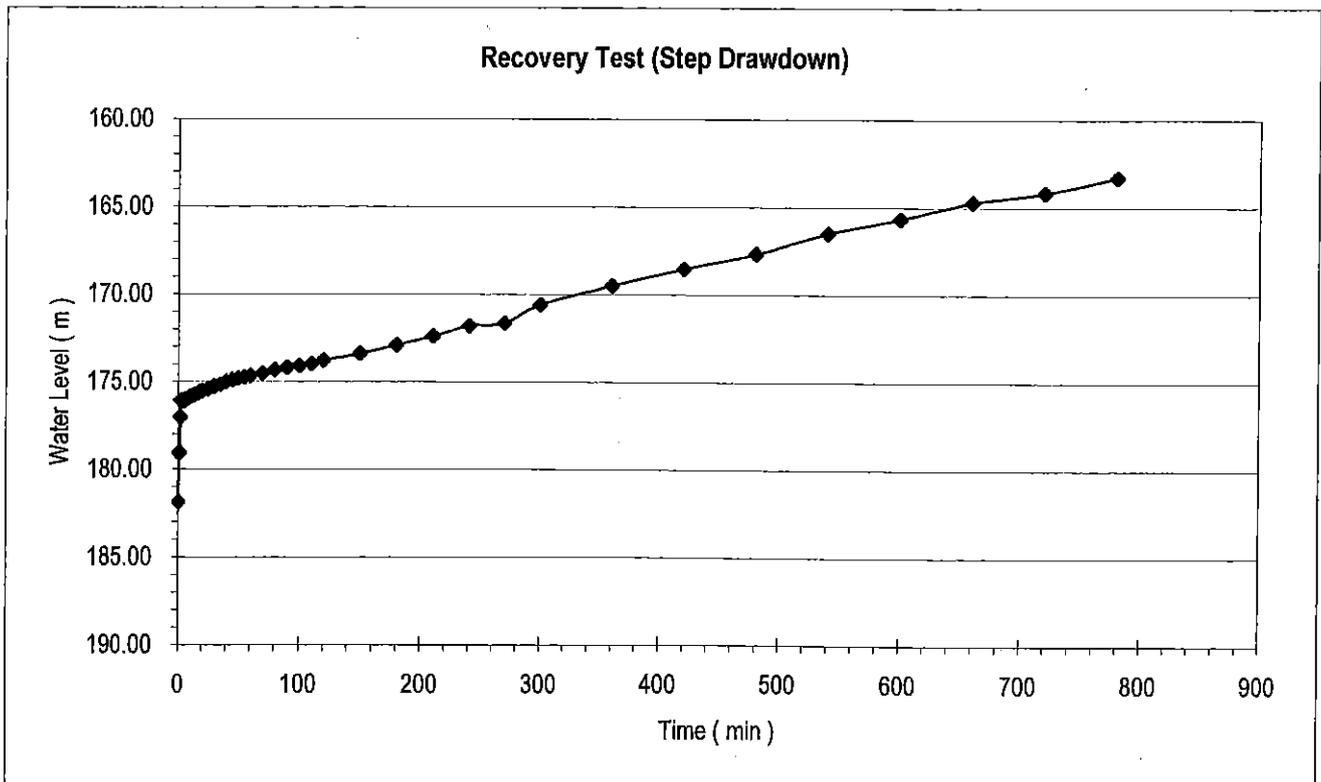
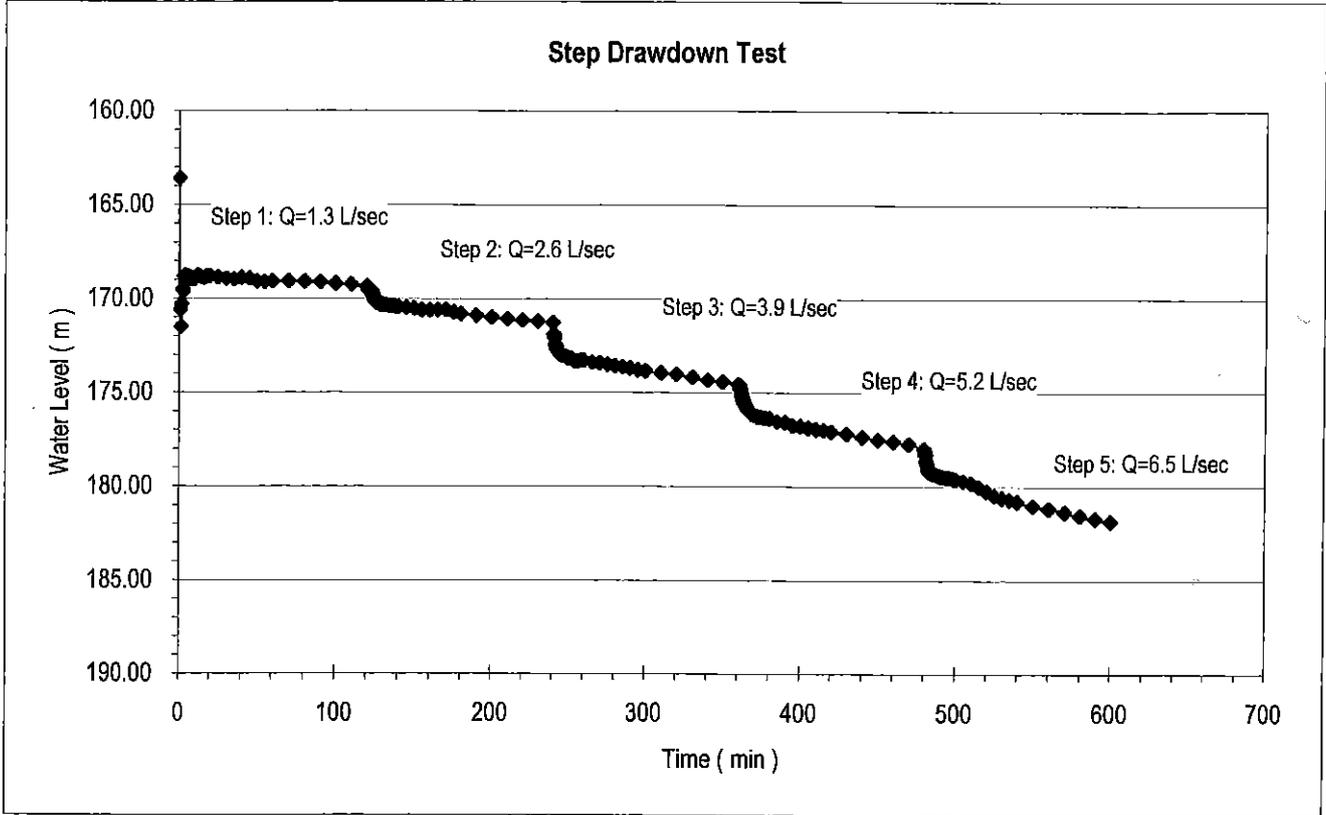
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Al Raboi

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	163.60	1.30	169.35	2.60	171.30	3.90	174.58	5.20	177.98	6.50	181.86
0.5	170.60		169.44		171.92		174.60		178.15		179.10
1.0	171.51		169.57		172.10		174.63		178.33		179.03
1.5	170.30		169.60		172.45		174.83		178.65		177.03
2.0	169.48		169.63		172.56		175.06		178.84		176.08
2.5	169.60		169.63		172.71		175.25		179.09		176.06
3.0	168.82		169.65		172.74		175.40		179.21		176.09
3.5	168.83		169.73		172.84		175.51		179.23		176.10
4.0	168.76		169.90		172.90		175.60		179.25		176.13
4.5	168.90		170.05		172.95		175.67		179.26		176.10
5.0	168.90		170.12		173.00		175.73		179.27		176.02
6.0	168.85		170.25		173.03		175.89		179.30		176.04
7.0	168.88		170.26		173.06		176.02		179.33		176.00
8.0	169.00		170.31		173.09		176.13		179.35		175.95
9.0	168.90		170.30		173.16		176.14		179.40		175.90
10.0	168.95		170.33		173.17		176.20		179.44		175.85
12.0	168.75		170.35		173.20		176.27		179.46		175.80
14.0	168.84		170.39		173.33		176.30		179.51		175.75
16.0	168.90		170.40		173.34		176.33		179.52		175.69
18.0	168.80		170.43		173.30		176.36		179.55		175.59
20.0	168.80		170.45		173.30		176.38		179.62		175.54
25.0	168.88		170.48		173.40		176.53		179.70		175.43
30.0	168.95		170.51		173.44		176.58		179.81		175.28
35.0	168.98		170.60		173.52		176.75		180.01		175.19
40.0	168.90		170.62		173.59		176.78		180.25		175.00
45.0	168.93		170.61		173.64		176.88		180.48		174.90
50.0	169.10		170.60		173.70		176.94		180.60		174.82
55.0	169.12		170.70		173.80		177.00		180.70		174.75
60.0	169.08		170.80		173.85		177.08		180.79		174.67
70.0	169.08		170.90		173.96		177.18		181.02		174.54
80.0	169.10		171.00		174.05		177.37		181.17		174.35
90.0	169.14		171.10		174.20		177.52		181.35		174.22
100.0	169.20		171.17		174.35		177.61		181.54		174.10
110.0	169.25		171.21		174.44		177.73		181.70		174.00
120.0	169.35		171.30		174.58		177.98		181.86		173.80
150.0											173.42
180.0											172.92
210.0											172.40
240.0											171.82
270.0											171.66

Step Drawdown Test

Well Code: D-03
Site Code: D-03
S.W.L. : 163.60 m

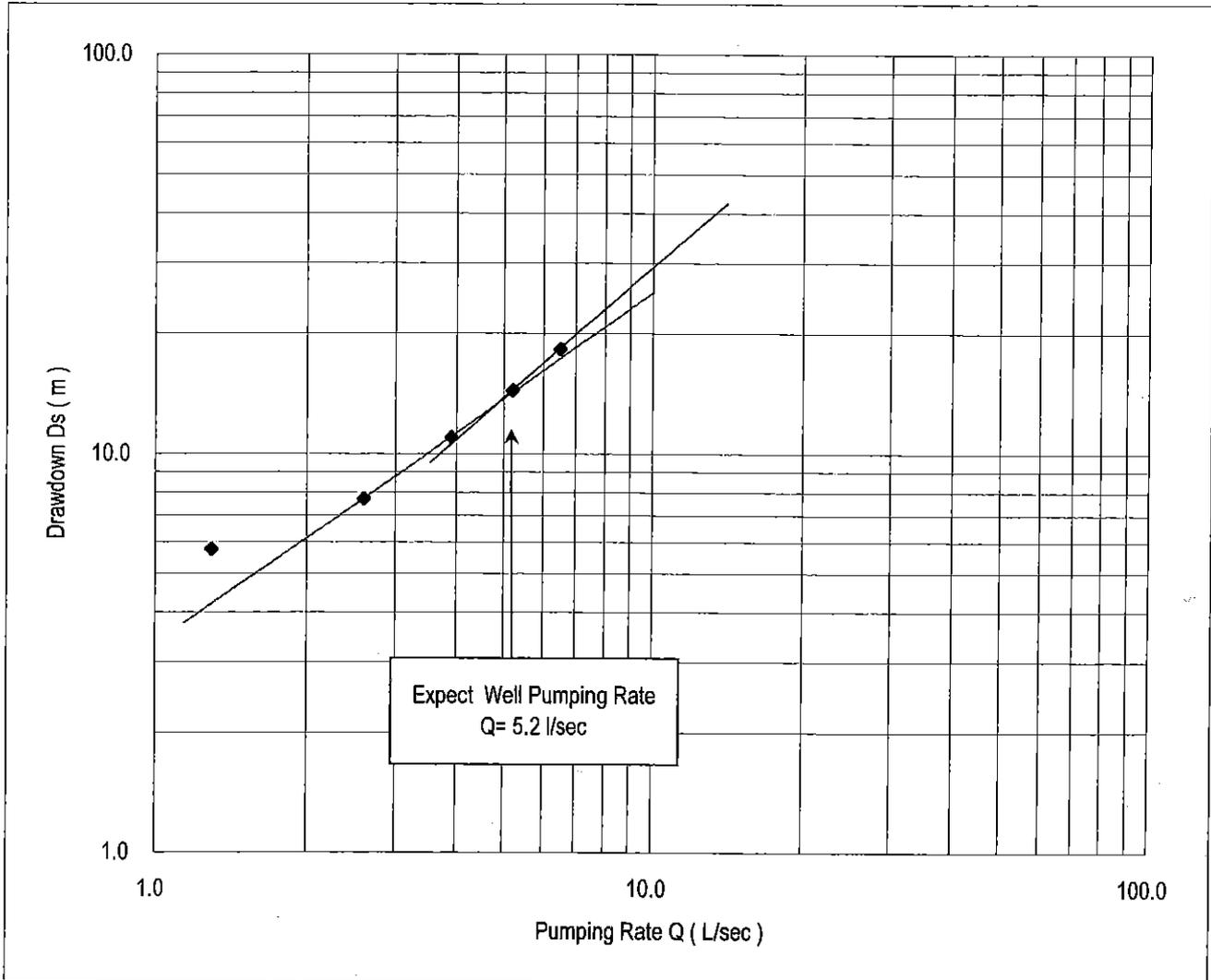
Site Name: Hegrat Al A'asham



Step Drawdown Test

Well Code: D-03
 Site Code: D-03
 S.W.L. : 163.60 m

Site Name: Hegrat Al A'asham



Step	Q (l/sec)	D.W.L. (m)	Ds (m)
1	1.3	169.35	5.75
2	2.6	171.30	7.70
3	3.9	174.58	10.98
4	5.2	177.98	14.38
5	6.5	181.86	18.26

Constant Discharge & Recovery Test (1/2)

Well Code: D-03 Site code: D-03

Site name: Hegrat Al A'asham

Pump on date/hour: 1/8/2006 8:00am

District: Jabal Al Sharq

Pump off date/hour: 2/8/2006 8:00am

Governorate: Dahmar

End of recovery hour: 3/8/2006 9:00am

Contractor: Mabkhout Al-Abraki

S.W.L (m): 163.60

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 184.50

Operator: Al Raboi

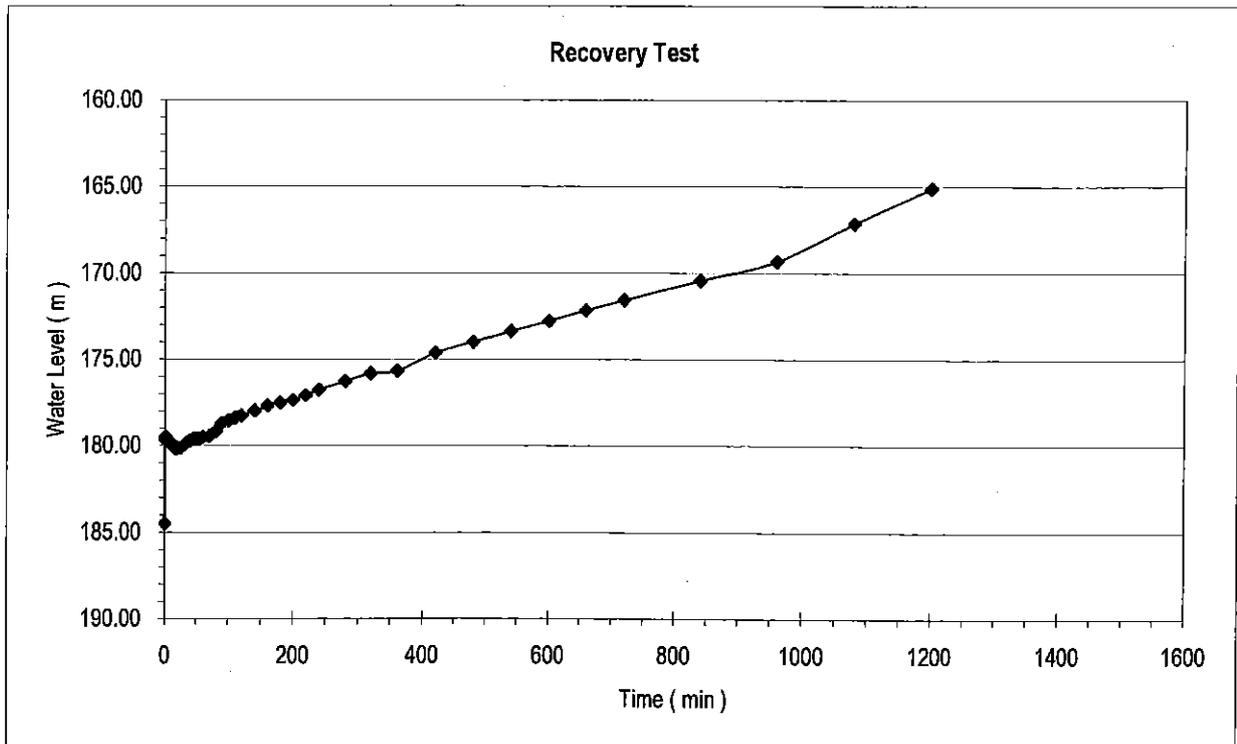
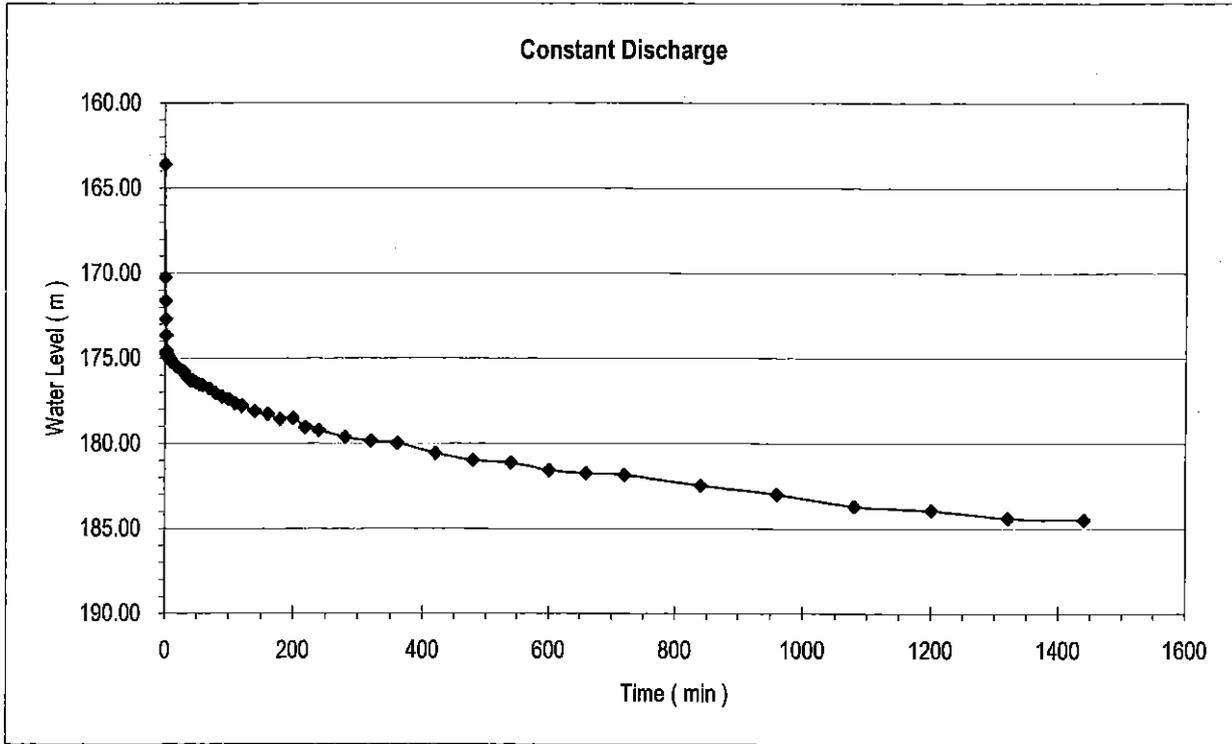
Yield (l/sec): 5.0

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (μ S/cm)	
0.0	163.60	0.00		184.50	20.90		
0.5	170.24	6.64		179.70	16.10		
1.0	171.62	8.02		179.50	15.90		
1.5	172.70	9.10		179.56	15.96		
2.0	173.65	10.05		179.59	15.99		
2.5	174.78	11.18		179.62	16.02		
3.0	174.60	11.00		179.66	16.06		
3.5	174.74	11.14		179.70	16.10		
4.0	174.94	11.34		179.72	16.12		
4.5	174.97	11.37		179.75	16.15		
5.0	174.97	11.37		179.76	16.16		
6.0	174.94	11.34		179.78	16.18		
7.0	175.05	11.45		179.83	16.23		
8.0	175.08	11.48		179.85	16.25		
9.0	175.20	11.60		179.88	16.28		
10.0	175.23	11.63		179.92	16.32		
12.0	175.28	11.68		179.96	16.36		
14.0	175.32	11.72		180.11	16.51		
16.0	175.44	11.84		180.18	16.58		
18.0	175.50	11.90		180.20	16.60		
20.0	175.53	11.93		180.15	16.55		
25.0	175.71	12.11		180.14	16.54		
30.0	175.80	12.20		180.00	16.40		
35.0	176.08	12.48		179.85	16.25		
40.0	176.30	12.70		179.73	16.13		
45.0	176.32	12.72		179.65	16.05		
50.0	176.44	12.84		179.62	16.02		
55.0	176.56	12.96		179.60	16.00		
60.0	176.58	12.98		179.54	15.94	840	

Constant Discharge Test

Well Code: D-03
Site Code: D-03
S.W.L. (m): 163.60
Yield (L/sec): 5.0

Site Name Hegrat Al A'asham
D.W.L (m): 184.50 Drawdown (m): 20.90



Pumping Test Report Sheet

Well code: D-04 Site code: D-04 Site name: Al Kuob

District: Duran Governorate: Dahmar

Target water source: New projected deep well Well depth: 152 m

Contractor: Mabkhout Al-Abraki

Hydrogeologist in charge: Abudul Salam Sallam

Operator: Kaid Al Abraki

Date of start of the test: 31/8/2006 Date of end of the test: 3/9/2006

Pump type: Vertical pump Engine: IVECO Aifo

Pump installation depth: 123 m Datum level: 0.60 m S.W.L.: G.L. 84.90 m

Step drawdown test

Date/hour started: 1/9/2006 9:00am Date/hour finished: 2/9/2006 1:00am Total hours: 16:00

Yield (l/sec) 1st step 0.10 2nd step 0.20 3rd step 0.30 4th step 0.40 5th step 0.50

Water level before start the test (G.L.-m): 84.90

Water level after end of 5th step (G.L.-m): 96.56

Water level after recovery (G.L.-m): 84.90 Recovery hours 6:00

Constant discharge test

Date/hour started: 2/9/2006 12:00pm Date/hour finished: 3/9/2006 11:00pm Total hours: 35:00

Yield (l/sec) 0.30

Water level before start of the test (G.L.-m): 84.90

Water level after end of test (G.L.-m): 91.42

Water level after recovery (G.L.-m): 84.90 Recovery hours 11:00

Drawdown (m): 6.52

Revised by:

Name :

Date:

Step Drawdown Test (1/2)

Well Code: D-06 Site code: D-06
 Site name: Wardasan
 District: Ans
 Governorate Dahmar

Pump on date/hour: 25/7/2006 4:55pm
 Pump off date/hour: 25/7/2006 11:33pm
 End of recovery hour: 26/7/2006 3:33pm
 S.W.L (m): 90.45

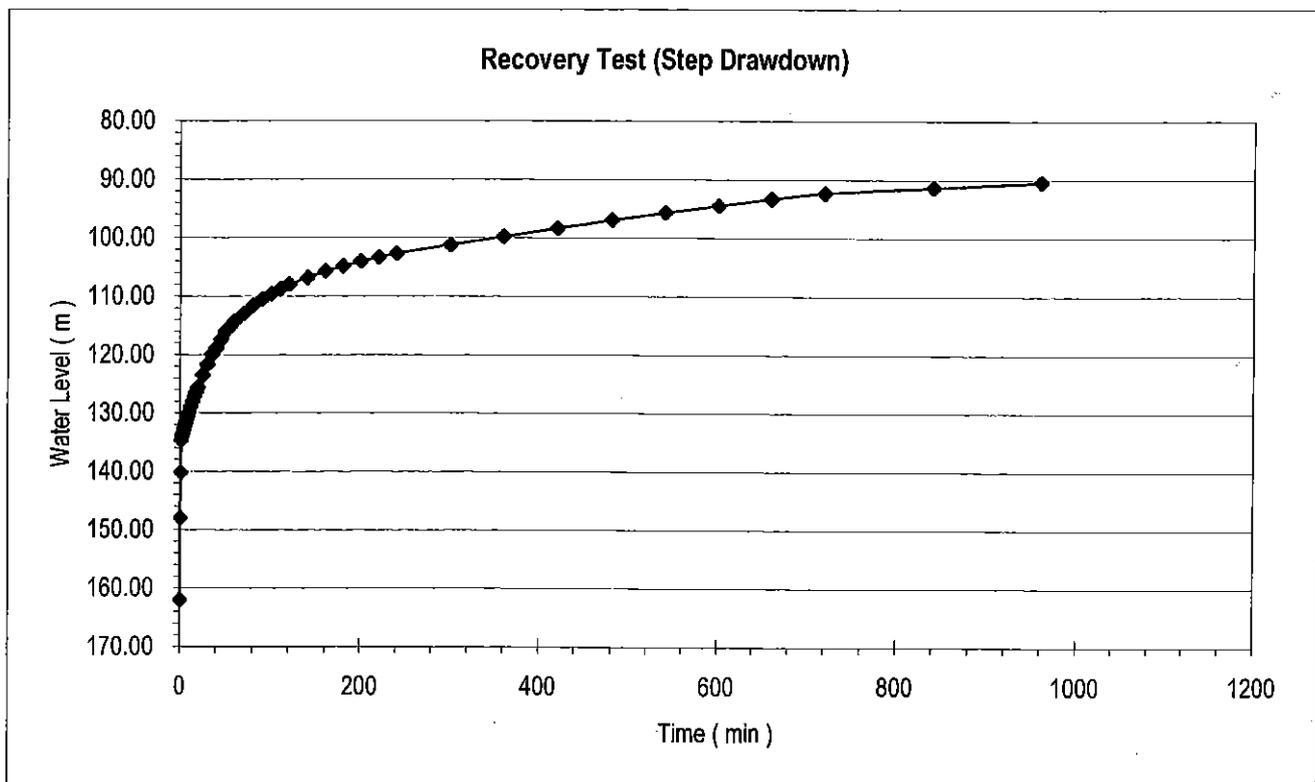
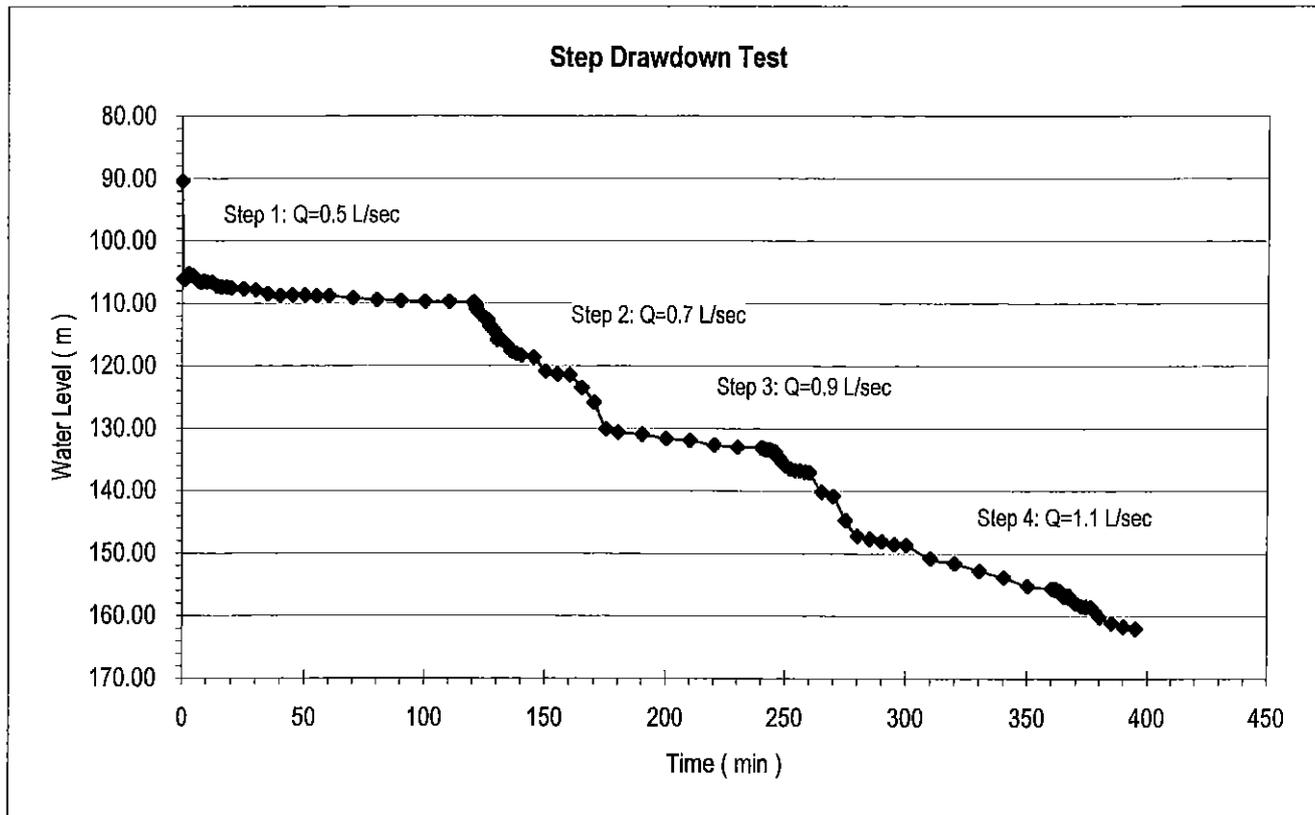
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Al Raboi

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	90.45	0.50	109.89	0.70	133.08	0.90	155.56	1.10			162.00
0.5	106.10		109.92		133.18		155.65				148.00
1.0	106.20		110.35		133.28		155.67				140.20
1.5	105.65		110.92		133.37		155.72				134.68
2.0	105.43		111.31		133.40		155.75				134.10
2.5	105.37		111.67		133.42		155.83				133.70
3.0	105.37		111.85		133.44		155.98				133.50
3.5	105.55		112.03		133.46		156.00				133.30
4.0	105.60		112.18		133.47		156.40				132.85
4.5	105.64		112.28		133.61		156.60				132.57
5.0	105.76		112.36		133.75		156.80				132.37
6.0	106.20		112.60		133.76		156.90				131.83
7.0	106.53		113.70		134.64		156.69				131.28
8.0	106.60		114.23		135.00		157.27				130.80
9.0	106.53		114.50		135.65		157.70				130.30
10.0	106.60		115.87		136.00		157.97				129.87
12.0	106.62		115.92		136.45		158.35				128.93
14.0	107.23		116.60		136.70		158.50				128.05
16.0	107.42		117.70		136.78		158.54				127.20
18.0	107.43		118.10		136.98		159.25				126.40
20.0	107.55		118.33		137.05		160.17				125.60
25.0	107.71		118.68		140.14		161.08				123.60
30.0	107.85		120.91		140.87		161.65				121.69
35.0	108.50		121.32		144.70		162.00				120.02
40.0	108.78		121.47		147.20						118.90
45.0	108.70		123.53		147.65						117.45
50.0	108.72		125.86		148.04						116.00
55.0	108.82		130.15		148.50						115.28
60.0	108.83		130.70		148.63						114.27
70.0	109.18		130.98		150.81						112.94
80.0	109.43		131.63		151.60						111.65
90.0	109.60		131.96		152.75						110.60
100.0	109.75		132.66		153.80						109.67
110.0	109.78		132.98		155.15						108.85
120.0	109.89		133.08		155.56						108.03
140.0											106.88
160.0											105.79
180.0											104.89
200.0											104.09
220.0											103.37

Step Drawdown Test

Well Code: D-06
 Site Code: D-06
 S.W.L. : 90.45 m

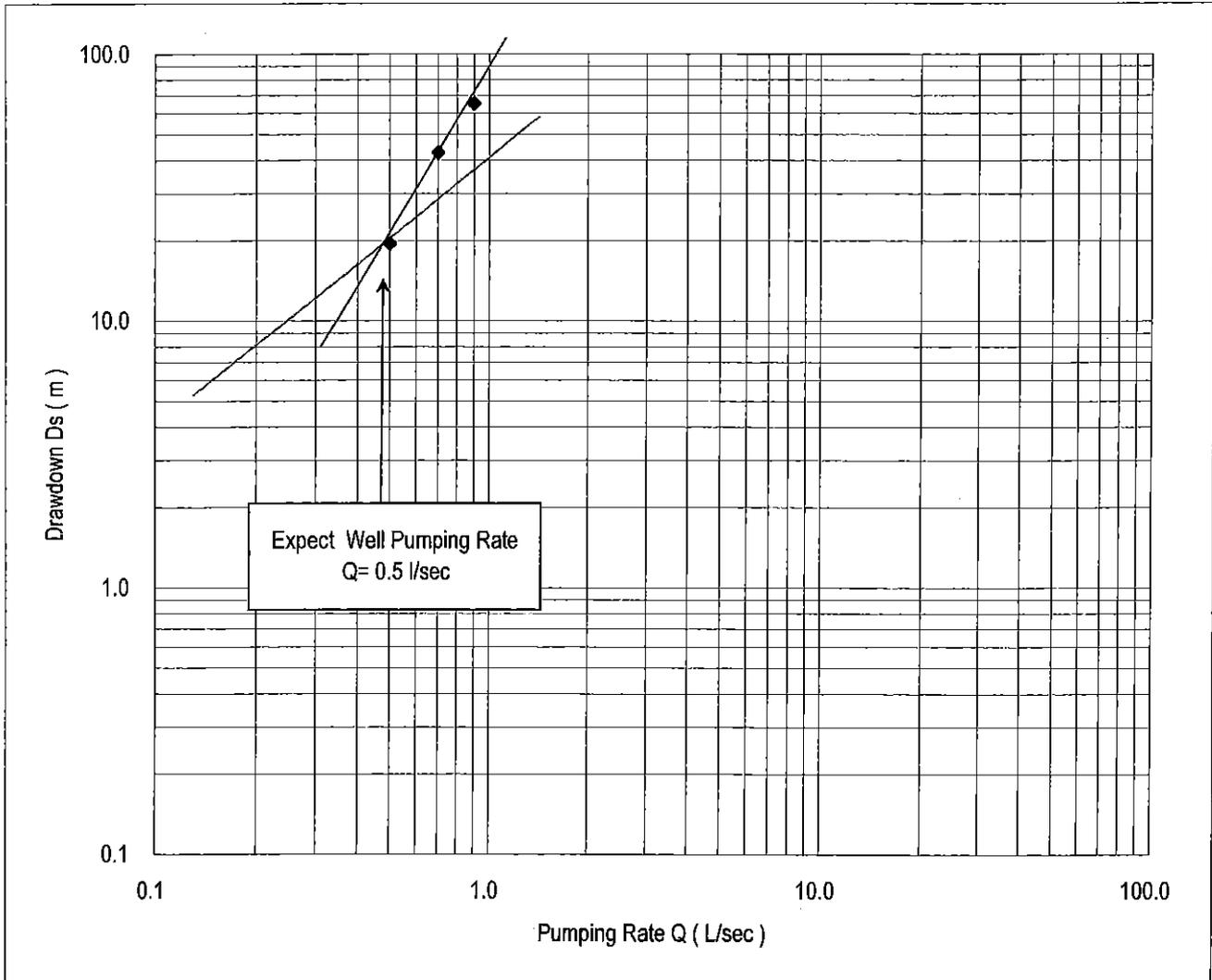
Site Name: Wardasan



Step Drawdown Test

Well Code: D-06
 Site Code: D-06
 S.W.L. : 90.45 m

Site Name: Wardasan



Step	Q (l/sec)	D.W.L. (m)	D_s (m)
1	0.5	109.89	19.44
2	0.7	133.08	42.63
3	0.9	155.56	65.11
4			
5			

Constant Discharge & Recovery Test (1/2)

Well Code: D-06 Site code: D-06

Site name: Wardasan

Pump on date/hour: 26/7/2006 3:50pm

District: Ans

Pump off date/hour: 27/7/2006 3:50pm

Governorate: Dahmar

End of recovery hour: 28/7/2006 8:50pm

Contractor: Mabkhout Al-Abraki

S.W.L (m): 90.45

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 132.70

Operator: Al Raboi

Yield (l/sec): 0.5

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (μ S/cm)	
0.0	90.45	0.00		132.70	42.25		
0.5	107.22	16.77		122.66	32.21		
1.0	107.26	16.81		114.40	23.95		
1.5	107.28	16.83		111.78	21.33		
2.0	107.23	16.78		112.29	21.84		
2.5	107.13	16.68		112.50	22.05		
3.0	107.22	16.77		112.90	22.45		
3.5	107.30	16.85		113.20	22.75		
4.0	107.40	16.95		113.45	23.00		
4.5	107.45	17.00		113.73	23.28		
5.0	107.51	17.06		114.08	23.63		
6.0	107.93	17.48		114.26	23.81		
7.0	107.96	17.51		114.58	24.13		
8.0	107.66	17.21		114.84	24.39		
9.0	107.72	17.27		115.10	24.65		
10.0	107.79	17.34		115.27	24.82		
12.0	107.83	17.38		115.62	25.17		
14.0	107.86	17.41		115.85	25.40		
16.0	107.90	17.45		116.00	25.55		
18.0	107.97	17.52		116.02	25.57		
20.0	108.10	17.65		116.12	25.67		
25.0	108.46	18.01		116.15	25.70		
30.0	108.54	18.09		116.02	25.57		
35.0	108.56	18.11		115.91	25.46		
40.0	108.69	18.24		115.76	25.31		
45.0	108.78	18.33		115.55	25.10		
50.0	109.20	18.75		115.36	24.91		
55.0	109.41	18.96		115.16	24.71		
60.0	109.65	19.20		114.98	24.53	1657	

Constant Discharge & Recovery Test (2/2)

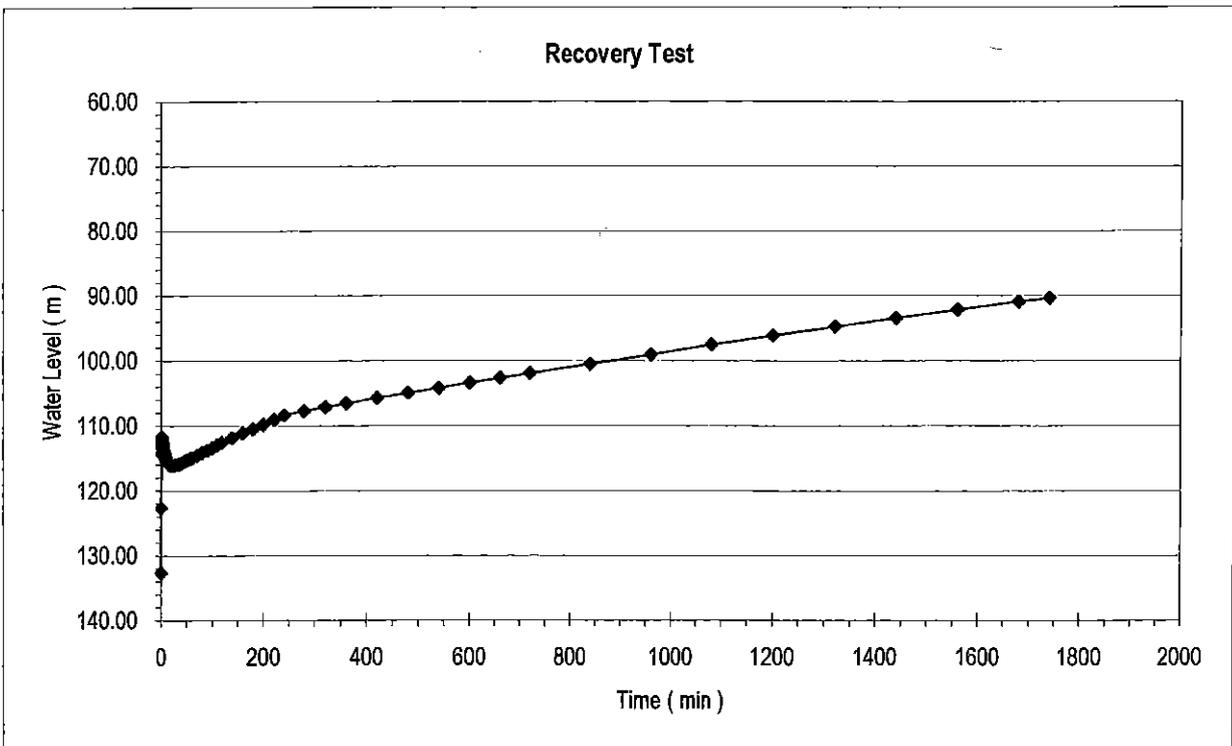
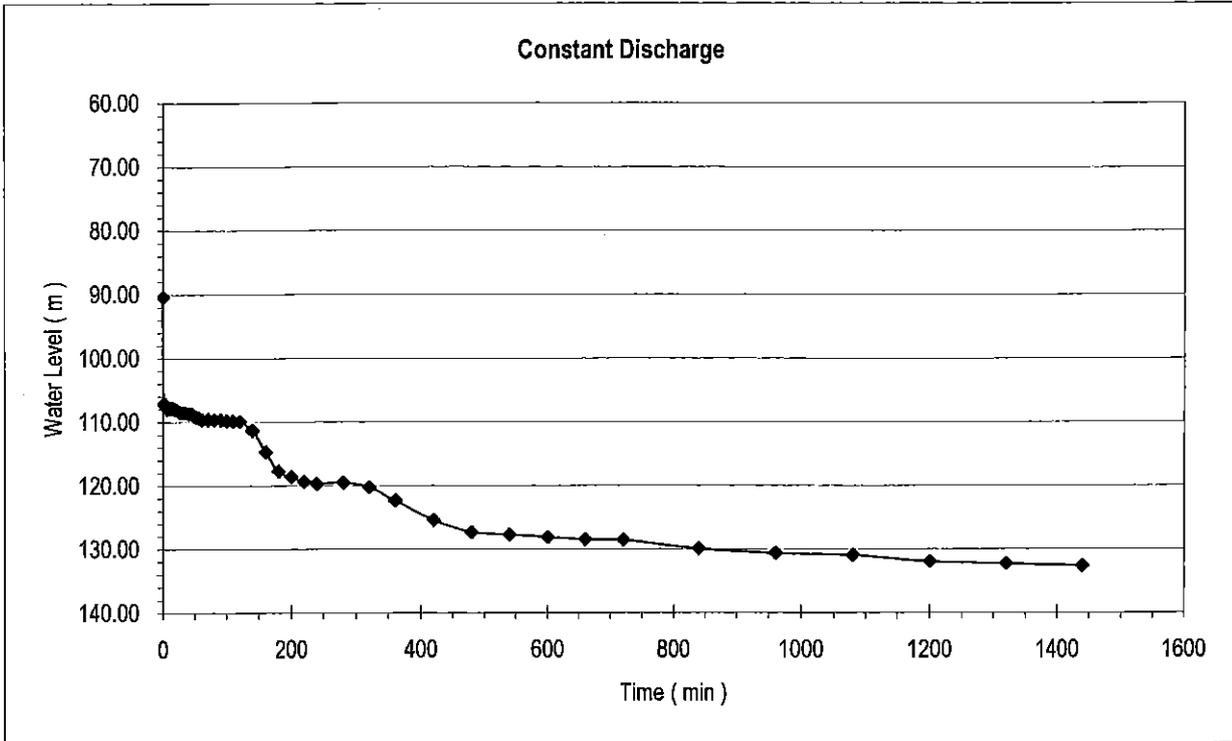
Well Code: D-06 Site code: D-06 Site name: Wardasan
 District: Ans Governorate: Dahmar

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (µS/cm)	
70.0	109.64	19.19		114.60	24.15		
80.0	109.67	19.22		114.20	23.75		
90.0	109.71	19.26		113.81	23.36		
100.0	109.84	19.39		113.41	22.96		
110.0	109.89	19.44		113.00	22.55		
120.0	109.94	19.49		112.61	22.16	1657	
140.0	111.34	20.89		111.90	21.45		
160.0	114.73	24.28		111.22	20.77		
180.0	117.80	27.35		110.55	20.10		
200.0	118.64	28.19		109.85	19.40		
220.0	119.48	29.03		109.10	18.65		
240.0	119.74	29.29		108.41	17.96		
280.0	119.57	29.12		107.80	17.35		
320.0	120.31	29.86		107.20	16.75		
360.0	122.40	31.95		106.62	16.17		
420.0	125.45	35.00		105.77	15.32		
480.0	127.40	36.95		105.00	14.55		
540.0	127.73	37.28		104.22	13.77		
600.0	128.18	37.73		103.46	13.01		
660.0	128.51	38.06		102.71	12.26		
720.0	128.61	38.16		101.99	11.54		
840.0	129.99	39.54		100.53	10.08		
960.0	130.70	40.25		99.10	8.65		
1080.0	131.00	40.55		97.56	7.11	1657	
1200.0	132.00	41.55		96.18	5.73		
1320.0	132.32	41.87		94.83	4.38		
1440.0	132.70	42.25		93.50	3.05		
1560.0				92.22	1.77		
1680.0				90.97	0.52		
1740.0				90.45	0.00		

Constant Discharge Test

Well Code: D-06
Site Code: D-06
S.W.L. (m): 90.45
Yield (L/sec): 0.5

Site Name Wardasan
D.W.L. (m): 132.70 Drawdown (m): 42.25



Pumping Test Report Sheet

Well code: D-07 Site code: D-07 Site name: Al Asakera
District: Mayfa'a Governorate: Dahmar

Target water source: New projected deep well Well depth: 304 m

Contractor: Mabkhout Al-Abraki

Hydrogeologist in charge: Abudul Salam Sallam

Operator: Hezan Jameel

Date of start of the test: 20/7/2006 Date of end of the test: 22/7/2006

Pump type: Vertical pump Engine: Iveco aifo

Pump installation depth: 250 m Datum level: 0.52 m S.W.L.: G.L.-193.58 m

Step drawdown test

Date/hour started: 20/7/2006 3:40pm Date/hour finished: 21/7/2006 4:40am Total hours: 13:00

Yield (l/sec) 1st step 1.40 2nd step 2.80 3rd step 4.20 4th step 5.60 5th step 7.00

Water level before start the test (G.L.-m): 193.63

Water level after end of 5th step (G.L.-m): 196.42

Water level after recovery (G.L.-m): 193.63 Recovery hours 3:00

Constant discharge test

Date/hour started: 21/7/2006 11:15am Date/hour finished: 22/7/2006 6:15pm Total hours: 31:00

Yield (l/sec) 4.50

Water level before start of the test (G.L.-m): 193.63

Water level after end of test (G.L.-m): 195.18

Water level after recovery (G.L.-m): 193.63 Recovery hours 7:00

Drawdown (m): 1.55

Revised by:

Name :

Date:

Step Drawdown Test

Well Code: D-07 Site code: D-07
 Site name: Al Asakera
 District: Mayfa'a
 Governorate Dahmar

Pump on date/hour: 20/7/2006 3:40pm
 Pump off date/hour: 21/7/2006 1:40am
 End of recovery hour: 21/7/2006 4:40am
 S.W.L (m): 194.15

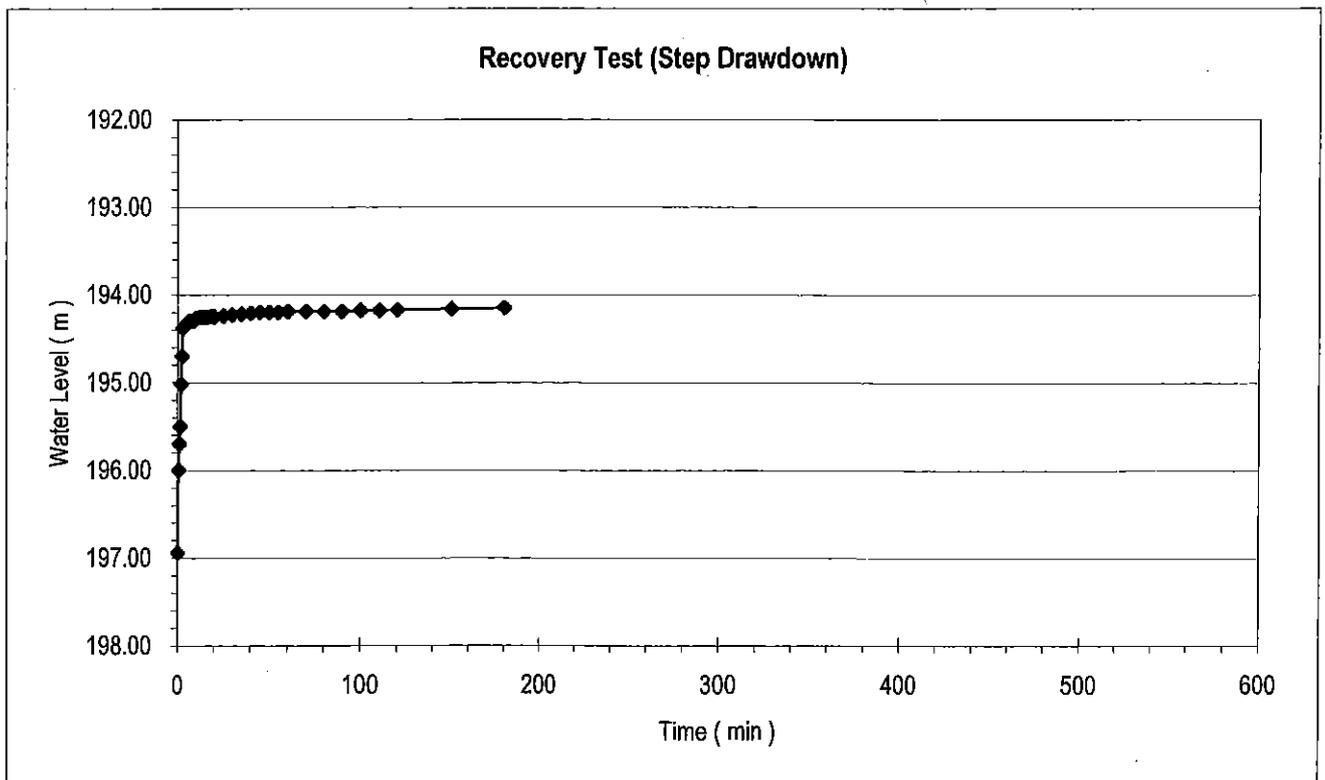
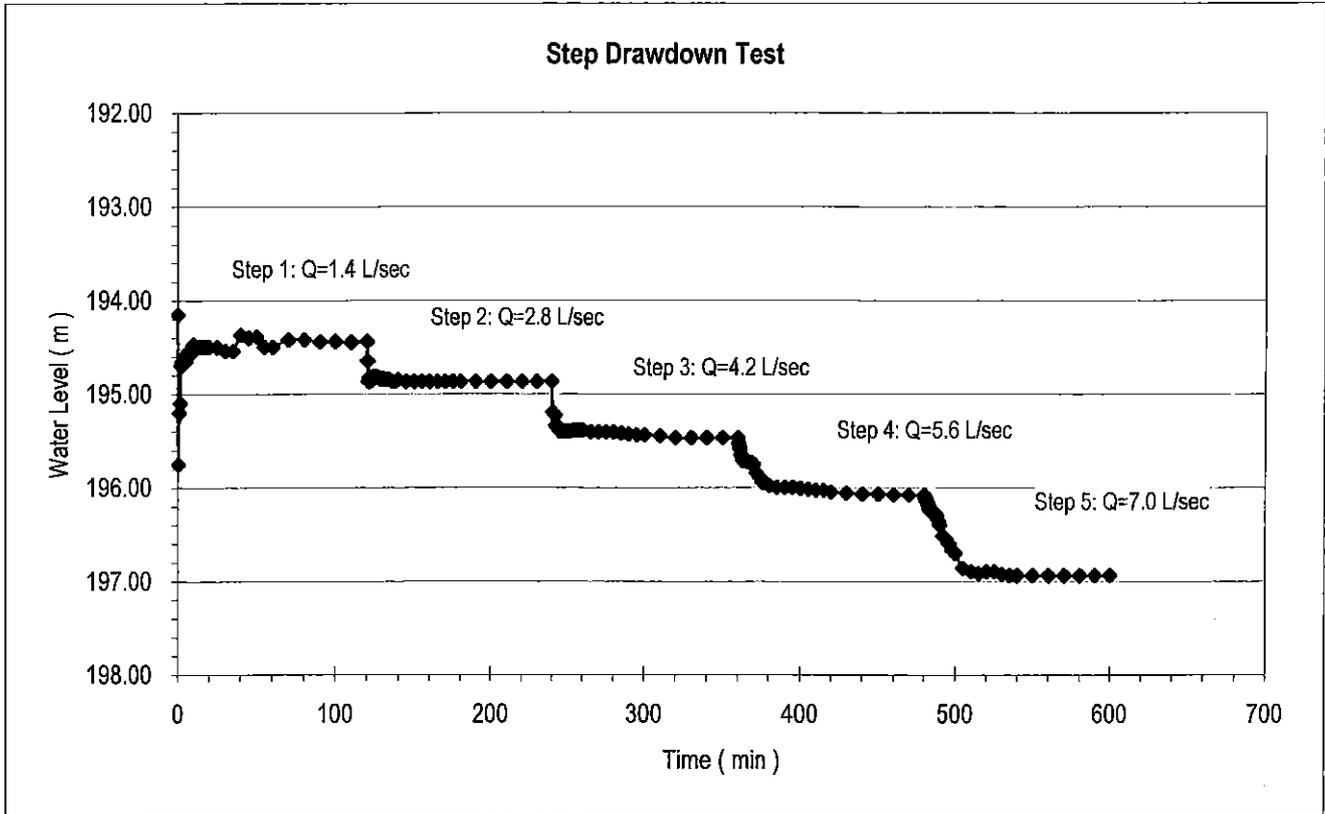
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hezan Jameel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	194.15	1.40	194.44	2.80	194.87	4.20	195.47	5.60	196.08	7.00	196.94
0.5	195.75		194.65		195.20		195.53		196.10		196.00
1.0	195.20		194.87		195.21		195.56		196.14		195.70
1.5	195.10		194.83		195.22		195.59		196.14		195.50
2.0	194.70		194.86		195.23		195.65		196.15		195.02
2.5	194.67		194.86		195.34		195.68		196.18		194.70
3.0	194.65		194.85		195.36		195.72		196.21		194.38
3.5	194.60		194.82		195.34		195.72		196.23		194.37
4.0	194.65		194.82		195.36		195.72		196.25		194.36
4.5	194.65		194.82		195.36		195.72		196.26		194.35
5.0	194.65		194.83		195.40		195.72		196.26		194.33
6.0	194.56		194.82		195.40		195.73		196.27		194.30
7.0	194.57		194.83		195.40		195.73		196.27		194.30
8.0	194.57		194.84		195.40		195.74		196.30		194.30
9.0	194.54		194.84		195.40		195.74		196.35		194.30
10.0	194.47		194.84		195.40		195.75		196.40		194.27
12.0	194.50		194.85		195.40		195.85		196.52		194.26
14.0	194.50		194.85		195.39		195.90		196.55		194.26
16.0	194.50		194.87		195.39		195.95		196.60		194.26
18.0	194.50		194.87		195.39		195.95		196.67		194.25
20.0	194.50		194.85		195.39		195.98		196.70		194.25
25.0	194.50		194.87		195.41		196.00		196.86		194.24
30.0	194.54		194.87		195.41		196.00		196.90		194.23
35.0	194.54		194.87		195.41		196.00		196.92		194.22
40.0	194.37		194.87		195.41		196.01		196.90		194.21
45.0	194.40		194.87		195.42		196.02		196.90		194.20
50.0	194.39		194.87		195.43		196.03		196.93		194.20
55.0	194.50		194.87		195.44		196.03		196.94		194.20
60.0	194.50		194.87		195.44		196.05		196.94		194.19
70.0	194.42		194.87		195.45		196.06		196.94		194.19
80.0	194.42		194.87		195.47		196.07		196.94		194.19
90.0	194.44		194.87		195.47		196.07		196.94		194.19
100.0	194.44		194.87		195.47		196.08		196.94		194.18
110.0	194.45		194.87		195.47		196.08		196.94		194.18
120.0	194.44		194.87		195.47		196.08		196.94		194.17
150.0											194.16
180.0											194.15

Step Drawdown Test

Well Code: D-07
Site Code: D-07
S.W.L. : 194.15 m

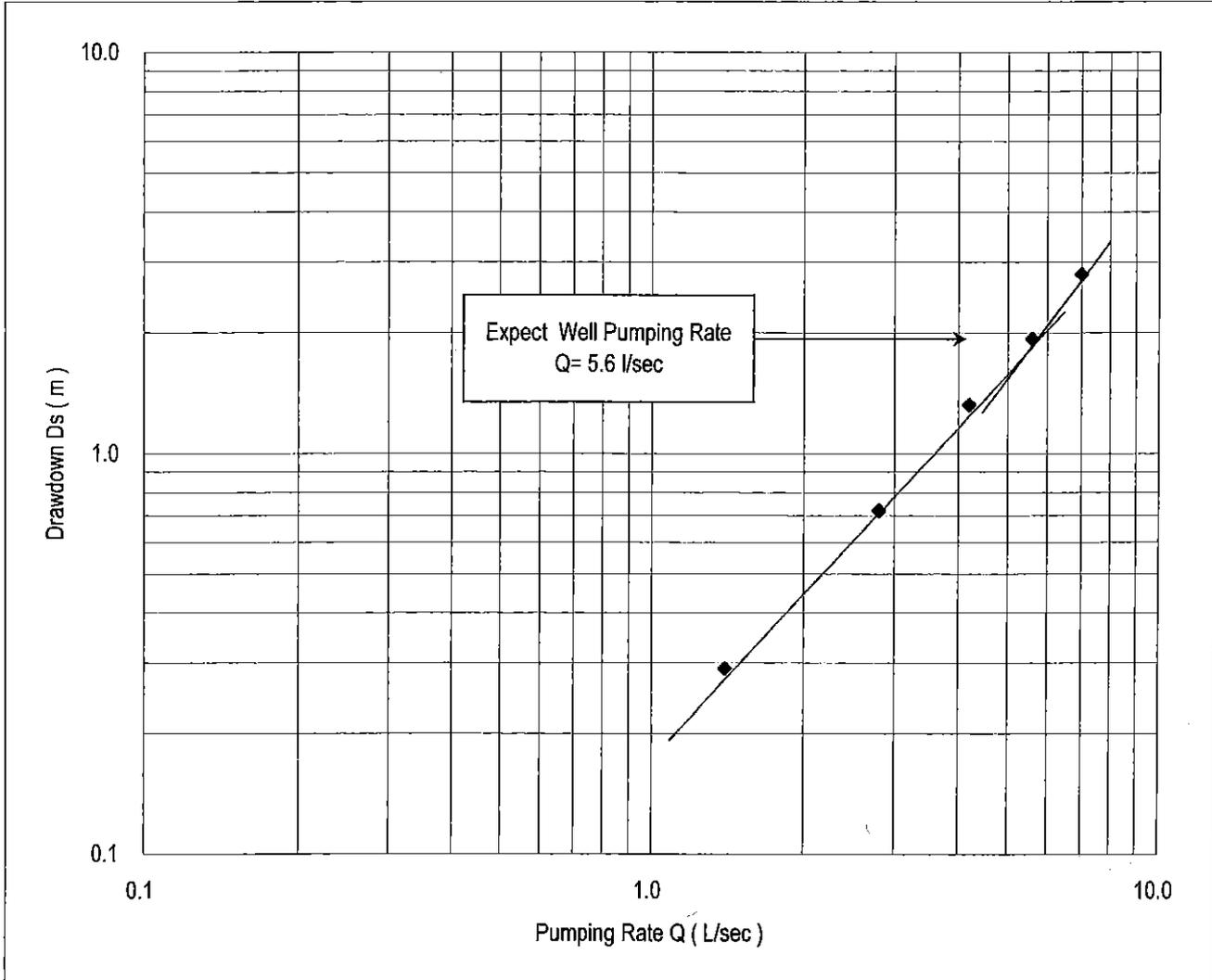
Site Name: Al Asakera



Step Drawdown Test

Well Code: D-07
 Site Code: D-07
 S.W.L. : 194.15 m

Site Name: Al Asakera



Step	Q (l/sec)	D.W.L. (m)	D_s (m)
1	1.4	194.44	0.29
2	2.8	194.87	0.72
3	4.2	195.47	1.32
4	5.6	196.08	1.93
5	7.0	196.94	2.79

Constant Discharge & Recovery Test (1/2)

Well Code: D-07 Site code: D-07

Site name: Al Asakera

District: Mayfa'a

Governorate: Dahmar

Pump on date/hour: 21/7/2006 11:15am

Pump off date/hour: 22/7/2006 11:15am

End of recovery hour: 22/7/2006 6:15pm

Contractor: Mabkhout Al-Abraki

S.W.L (m): 194.15

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 195.70

Operator: Hezan Jameel

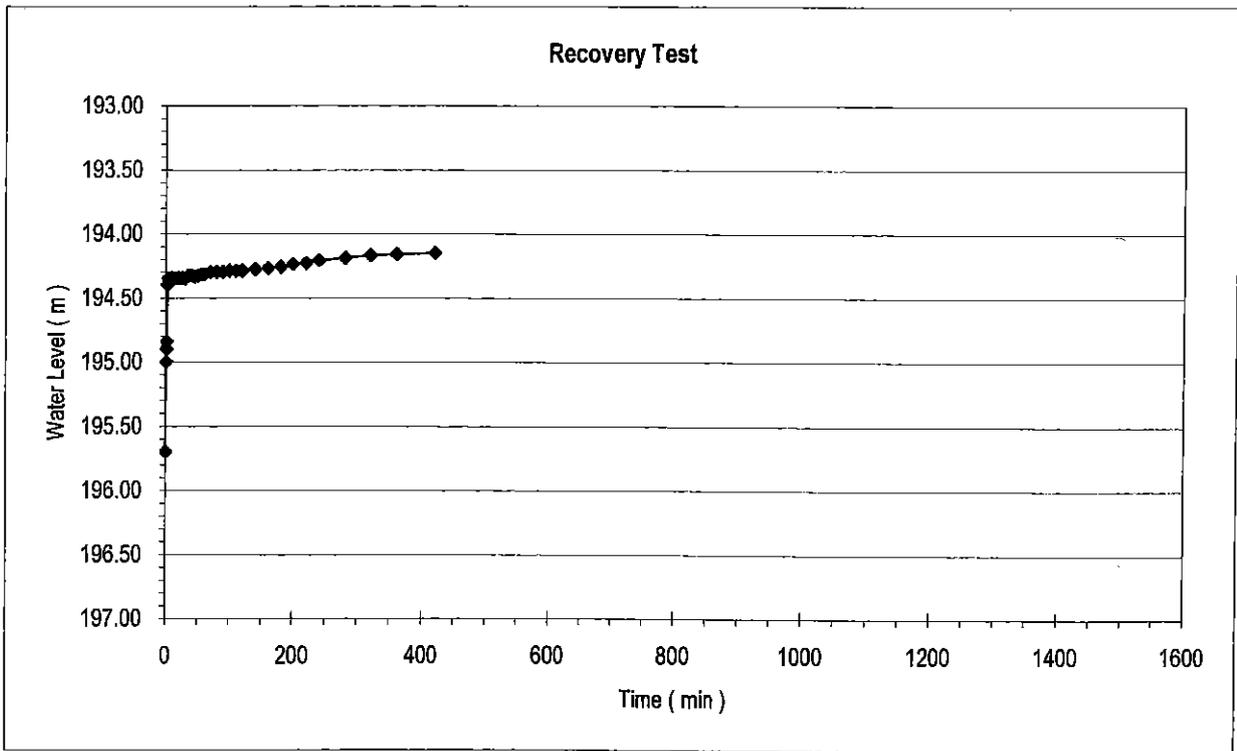
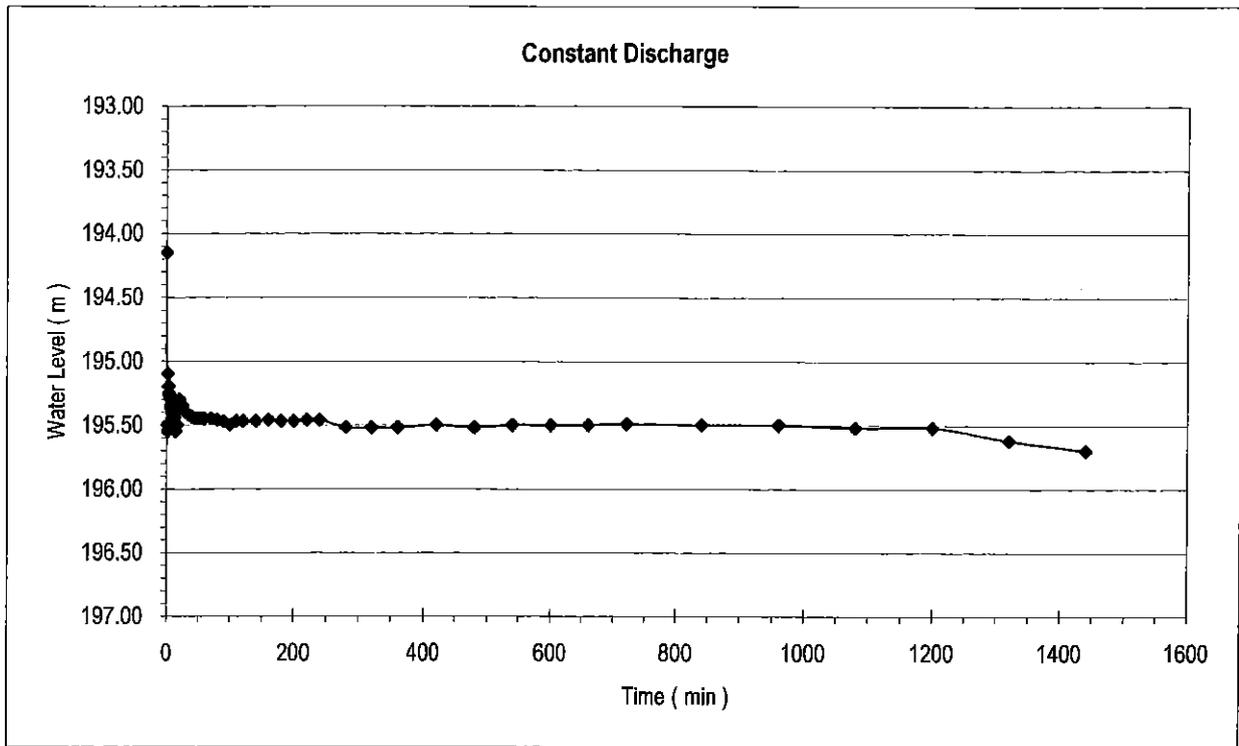
Yield (l/sec): 4.5

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (μ S/cm)	
0.0	194.15	0.00		195.70	1.55		
0.5	195.50	1.35		195.00	0.85		
1.0	195.55	1.40		194.90	0.75		
1.5	195.55	1.40		194.84	0.69		
2.0	195.10	0.95		194.40	0.25		
2.5	195.10	0.95		194.40	0.25		
3.0	195.20	1.05		194.35	0.20		
3.5	195.25	1.10		194.35	0.20		
4.0	195.26	1.11		194.35	0.20		
4.5	195.27	1.12		194.35	0.20		
5.0	195.30	1.15		194.35	0.20		
6.0	195.35	1.20		194.35	0.20		
7.0	195.37	1.22		194.35	0.20		
8.0	195.39	1.24		194.35	0.20		
9.0	195.40	1.25		194.35	0.20		
10.0	195.41	1.26		194.35	0.20		
12.0	195.44	1.29		194.35	0.20		
14.0	195.55	1.40		194.35	0.20		
16.0	195.50	1.35		194.35	0.20		
18.0	195.35	1.20		194.35	0.20		
20.0	195.30	1.15		194.35	0.20		
25.0	195.35	1.20		194.35	0.20		
30.0	195.40	1.25		194.35	0.20		
35.0	195.42	1.27		194.33	0.18		
40.0	195.44	1.29		194.33	0.18		
45.0	195.45	1.30		194.33	0.18		
50.0	195.45	1.30		194.33	0.18		
55.0	195.45	1.30		194.32	0.17		
60.0	195.45	1.30		194.32	0.17	1062	

Constant Discharge Test

Well Code: D-07
Site Code: D-07
S.W.L. (m): 194.15
Yield (L/sec): 4.5

Site Name Al Asakera
D.W.L. (m): 195.70 Drawdown (m): 1.55



Pumping Test Report Sheet

Well code: D-08 Site code: D-08 Site name: Masneat Abdul Aziz

District: Mayfa'a Governorate: Dahmar

Target water source: New projected deep well Well depth: 268 m

Contractor: Mabkhout Al-Abraki

Hydrogeologist in charge: Abudul Salam Sallam

Operator: Hosein Jameel

Date of start of the test: 20/7/2006 Date of end of the test: 23/7/2006

Pump type: Vertical pump Engine: Iveco aifo

Pump installation depth: 192 m Datum level: 0.82 m S.W.L.: G.L.-61.98 m

Step drawdown test

Date/hour started: 20/7/2006 5:50pm Date/hour finished: 21/7/2006 12:50pm Total hours: 19:00

Yield (l/sec) 1st step 1.40 2nd step 2.80 3rd step 4.20 4th step 5.60 5th step 7.00

Water level before start the test (G.L.-m): 61.98

Water level after end of 5th step (G.L.-m): 126.95

Water level after recovery (G.L.-m): 61.98 Recovery hours 9:00

Constant discharge test

Date/hour started: 21/7/2006 12:00am Date/hour finished: 23/7/2006 10:00am Total hours: 46:00

Yield (l/sec) 4.50

Water level before start of the test (G.L.-m): 61.98

Water level after end of test (G.L.-m): 123.68

Water level after recovery (G.L.-m): 61.98 Recovery hours 22:00

Drawdown (m): 61.70

Revised by:

Name :

Date:

Provisional Step Drawdown Test

Well Code: D-08 Site code: D-08
 Site name: Masneat Abdul Aziz
 District: Mayfa'a
 Governorate Dahmar

Pump on date/hour: 20/7/2006 7:45am
 Pump off date/hour: 20/7/2006 10:15am
 End of recovery hour: 20/7/2006 5:45pm
 S.W.L (m): 62.80

Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hosein Jameel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	62.80	1.40	68.13	2.80	72.27	4.20	81.44	5.60	92.01	7.00	103.88
0.5	64.96		68.18		72.69		81.58		92.46		99.98
1.0	65.10		68.22		73.02		81.79		93.10		98.22
1.5	65.03		68.33		73.34		81.96		93.48		97.46
2.0	65.01		68.35		73.65		82.16		93.94		96.87
2.5	65.04		68.41		74.03		82.47		94.32		96.27
3.0	65.08		68.48		74.22		82.77		94.73		95.73
3.5	65.21		68.64		74.47		83.11		95.06		94.91
4.0	65.28		68.72		74.70		83.44		95.27		94.59
4.5	65.39		68.80		74.91		83.72		95.39		94.10
5.0	65.50		68.89		75.12		84.00		95.52		93.66
6.0	65.73		69.08		75.61		84.46		95.68		92.78
7.0	65.87		69.36		76.26		84.96		95.78		91.88
8.0	66.02		69.54		76.53		85.32		95.92		91.08
9.0	66.23		69.71		76.85		85.74		96.67		90.25
10.0	66.34		69.86		77.18		86.19		97.17		89.64
12.0	66.66		70.22		77.81		87.02		98.18		88.17
14.0	66.83		70.44		78.27		87.76		98.97		87.06
16.0	67.12		70.61		79.12		88.44		99.73		85.92
18.0	67.23		70.72		79.24		89.10		100.45		84.81
20.0	67.46		70.84		79.69		89.65		101.09		83.89
22.0	67.67		70.95		80.13		90.21		101.69		82.70
24.0	67.71		71.11		80.51		90.66		102.30		82.10
26.0	67.84		71.66		80.82		91.14		102.84		81.44
28.0	67.99		71.97		81.17		91.51		103.39		80.63
30.0	68.13		72.27		81.44		92.01		103.88		80.08
60.0											78.78
90.0											77.42
120.0											76.14
150.0											74.91
180.0											73.62
210.0											72.37
240.0											71.15
270.0											69.92
300.0											68.75
330.0											67.51
360.0											66.33
390.0											65.19
420.0											64.09
450.0											62.80

Step Drawdown Test (1/2)

Well Code: D-08 Site code: D-08
 Site name: Masneat Abdul Aziz
 District: Mayfa'a
 Governorate Dahmar

Pump on date/hour: 20/7/2006 5:50pm
 Pump off date/hour: 21/7/2006 3:50am
 End of recovery hour: 21/7/2006 12:50pm
 S.W.L (m): 62.80

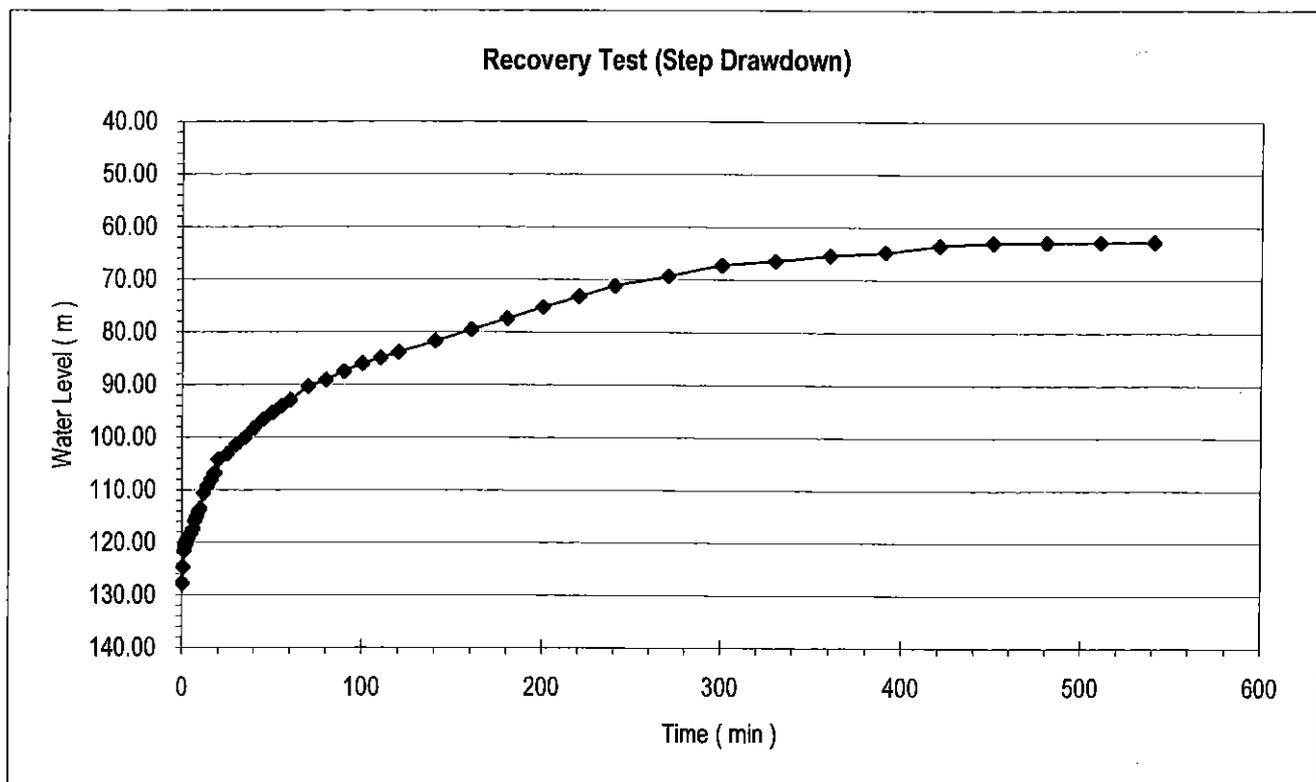
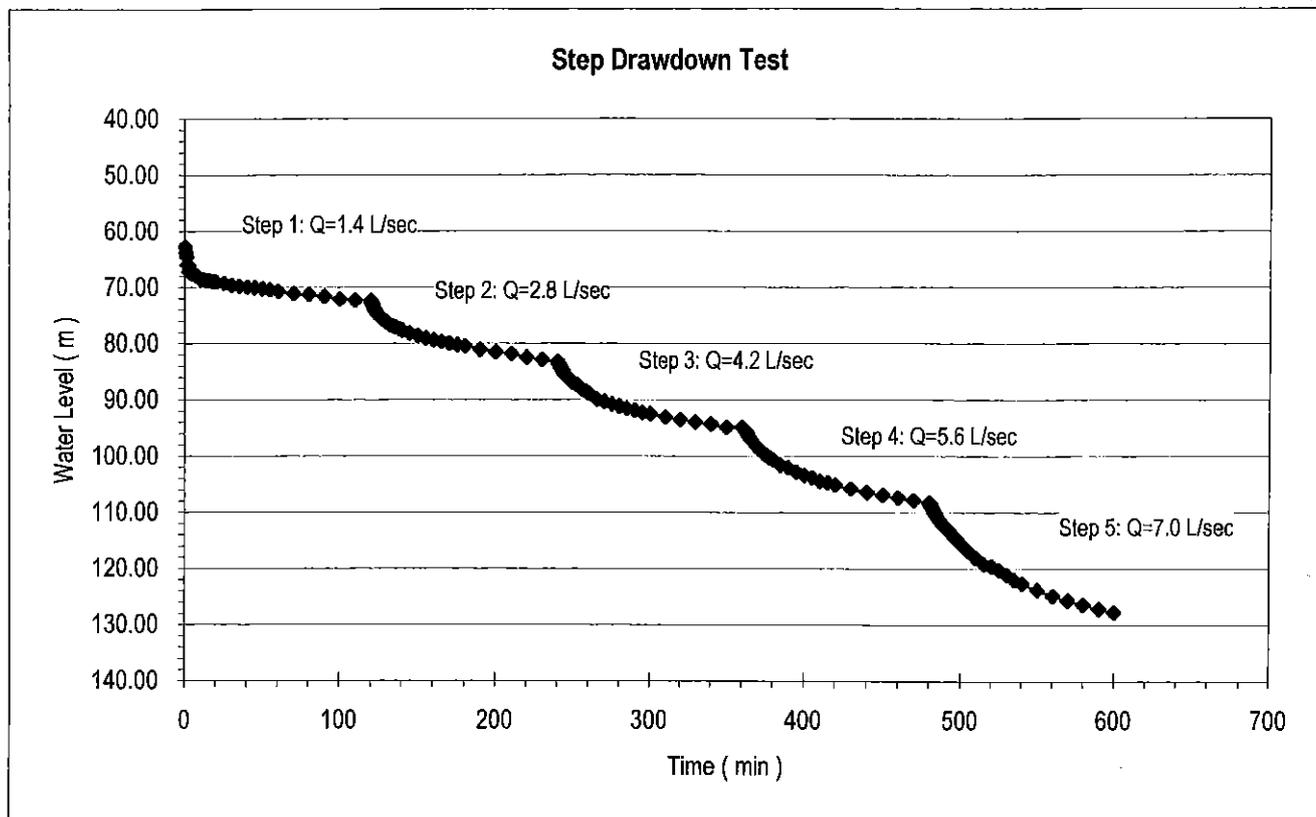
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hosein Jameel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	62.80	1.40	72.38	2.80	83.28	4.20	94.87	5.60	108.27	7.00	127.77
0.5	63.80		72.91		83.60		95.02		108.46		124.70
1.0	64.53		73.12		83.80		95.14		108.75		121.65
1.5	65.98		73.59		84.05		95.27		109.02		120.73
2.0	66.10		73.82		84.35		95.45		109.36		120.37
2.5	67.23		74.11		84.60		95.61		109.57		119.71
3.0	67.31		74.34		84.80		95.77		109.84		119.26
3.5	67.39		74.62		85.13		96.07		110.09		118.89
4.0	67.47		74.79		85.30		96.34		110.37		118.70
4.5	67.59		74.98		85.49		96.56		110.68		118.41
5.0	67.63		75.16		85.67		96.79		110.87		118.20
6.0	67.74		75.47		85.95		97.23		111.25		117.50
7.0	67.87		75.68		86.28		97.53		111.65		115.91
8.0	68.12		75.87		86.54		97.89		112.00		115.13
9.0	68.29		76.09		86.80		98.22		112.36		114.27
10.0	68.66		76.23		87.00		98.46		112.68		113.62
12.0	68.69		76.73		87.35		98.97		113.07		110.70
14.0	68.73		76.92		87.80		99.54		113.80		109.27
16.0	68.84		77.17		88.22		99.88		114.37		108.04
18.0	68.95		77.46		88.53		100.26		114.90		106.77
20.0	69.06		77.67		88.92		100.67		115.59		104.23
25.0	69.28		78.23		89.96		101.64		116.90		103.19
30.0	69.67		78.70		90.33		102.11		118.12		101.48
35.0	69.76		79.13		90.79		102.86		119.14		100.02
40.0	69.95		79.44		91.21		103.39		119.57		98.35
45.0	70.12		79.72		91.61		103.89		120.28		96.73
50.0	70.30		80.02		91.93		104.44		121.16		95.39
55.0	70.47		80.28		92.31		104.72		121.97		94.11
60.0	70.74		80.50		92.52		105.12		122.62		92.98
70.0	71.13		81.16		93.10		105.80		123.83		90.45
80.0	71.29		81.57		93.55		106.40		124.85		89.13
90.0	71.63		81.88		93.99		106.87		125.69		87.56
100.0	72.14		82.48		94.30		107.37		126.43		86.07
110.0	72.31		82.90		94.92		107.85		127.15		85.03
120.0	72.38		83.28		94.87		108.27		127.77		83.94
140.0											81.78
160.0											79.60
180.0											77.45
200.0											75.33
220.0											73.25

Step Drawdown Test

Well Code: D-08
Site Code: D-08
S.W.L. : 62.80 m

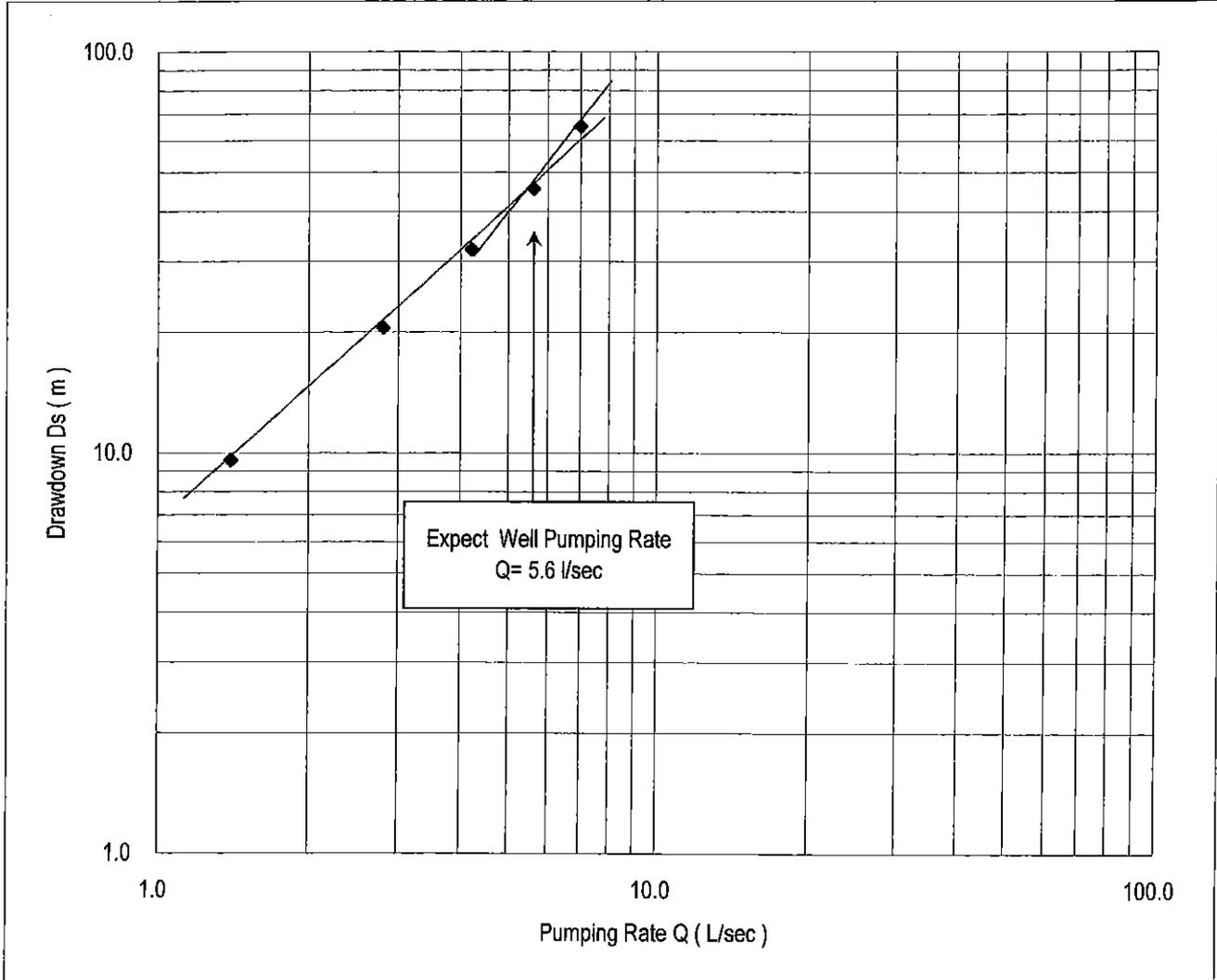
Site Name: Masneat Abdul Aziz



Step Drawdown Test

Well Code: D-08
 Site Code: D-08
 S.W.L. : 62.80 m

Site Name: Masneat Abdul Aziz



Step	Q (l/sec)	D.W.L. (m)	D_s (m)
1	1.4	72.38	9.58
2	2.8	83.28	20.48
3	4.2	94.87	32.07
4	5.6	108.27	45.47
5	7.0	127.77	64.97

Constant Discharge & Recovery Test (1/2)

Well Code: D-08 Site code: D-08

Site name: Masneat Abdul Aziz

Pump on date/hour: 21/7/2006 12:00am

District: Mayfa'a

Pump off date/hour: 22/7/2006 12:00am

Governorate: Dahmar

End of recovery hour: 23/7/2006 10:00am

Contractor: Mabkhout Al-Abraki

S.W.L (m): 62.80

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 124.50

Operator: Hosein Jameel

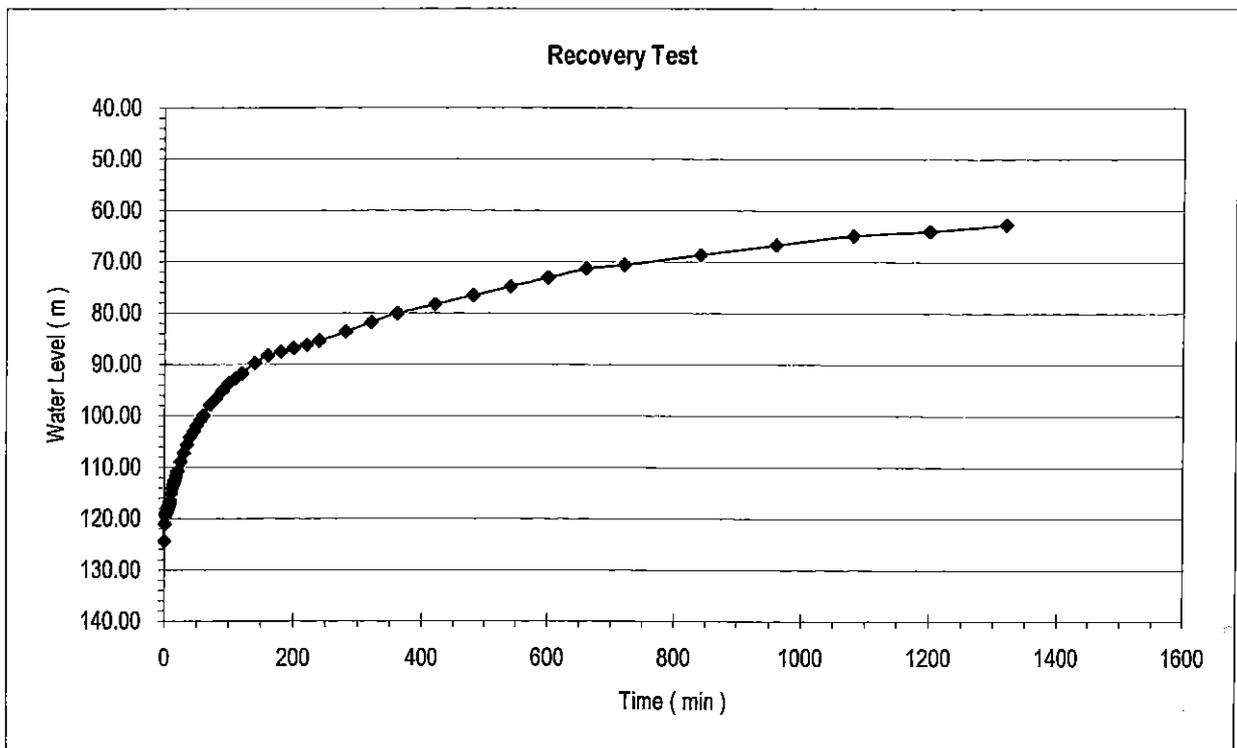
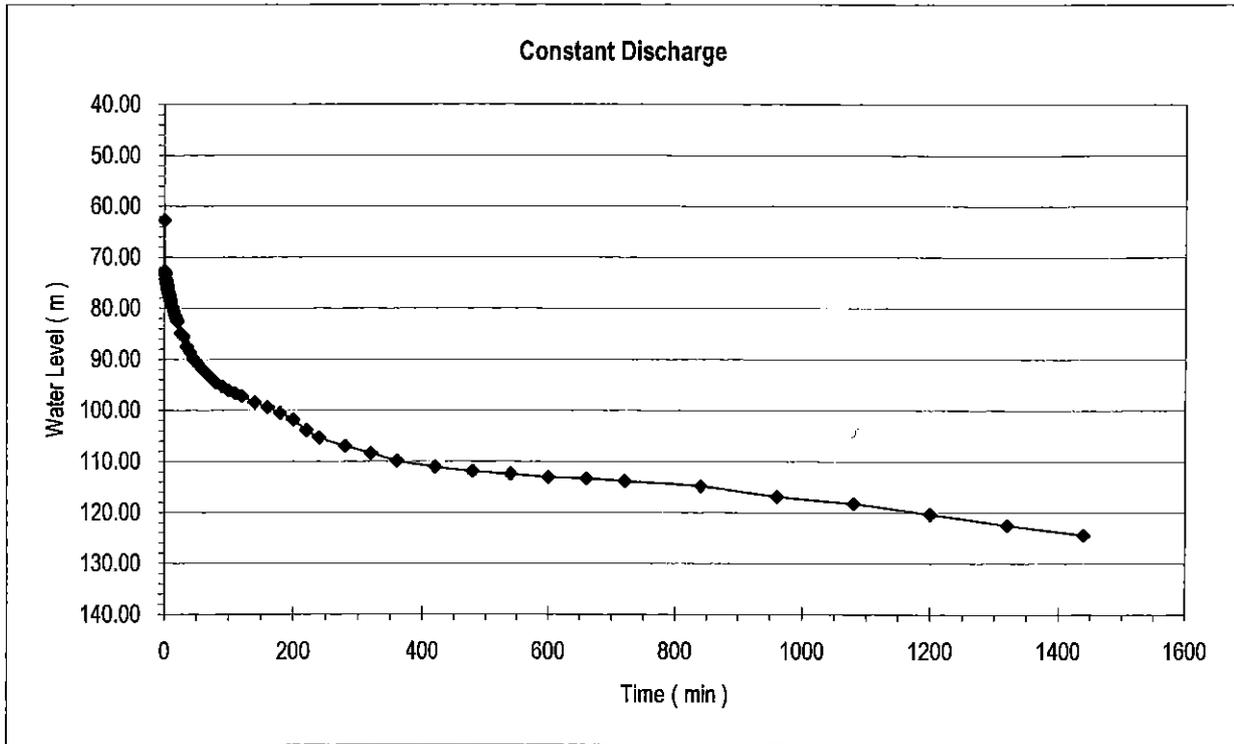
Yield (l/sec): 4.5

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (μ S/cm)	
0.0	62.80	0.00		124.50	61.70		
0.5	72.70	9.90		121.10	58.30		
1.0	73.10	10.30		119.20	56.40		
1.5	73.45	10.65		119.35	56.55		
2.0	74.30	11.50		119.30	56.50		
2.5	74.65	11.85		119.10	56.30		
3.0	74.83	12.03		119.00	56.20		
3.5	75.18	12.38		118.87	56.07		
4.0	75.58	12.78		118.72	55.92		
4.5	75.90	13.10		118.55	55.75		
5.0	76.35	13.55		118.12	55.32		
6.0	76.85	14.05		117.78	54.98		
7.0	77.28	14.48		117.47	54.67		
8.0	77.85	15.05		117.09	54.29		
9.0	78.30	15.50		116.64	53.84		
10.0	78.80	16.00		115.16	52.36		
12.0	79.79	16.99		114.12	51.32		
14.0	80.65	17.85		113.30	50.50		
16.0	81.40	18.60		112.60	49.80		
18.0	81.98	19.18		111.74	48.94		
20.0	82.67	19.87		110.82	48.02		
25.0	84.98	22.18		108.93	46.13		
30.0	85.61	22.81		107.29	44.49		
35.0	87.52	24.72		105.74	42.94		
40.0	88.74	25.94		104.07	41.27		
45.0	90.03	27.23		103.13	40.33		
50.0	90.73	27.93		101.98	39.18		
55.0	91.43	28.63		100.98	38.18		
60.0	92.17	29.37		99.97	37.17	420	

Constant Discharge Test

Well Code: D-08
Site Code: D-08
S.W.L. (m): 62.80
Yield (L/sec): 4.5

Site Name Masneat Abdul Aziz
D.W.L (m): 124.50 Drawdown (m): 61.70



Pumping Test Report Sheets

Governorate
of
Ibb



Pumping Test Report Sheet

Well code: I-01 Site code: I-01 Site name: Asfal Bani Saba
District: Al Qafr Governorate: Ibb

Target water source: New projected deep well Well depth: 305 m

Contractor: Mabkhout Al-Abraki
Hydrogeologist in charge: Abudul Salam Sallam
Operator: Kaid Al-Abraki

Date of start of the test: 11/7/2006 Date of end of the test: 14/7/2006
Pump type: Vertical pump Engine: Iveco aifo
Pump installation depth: 216 m Datum level: 1.00 m S.W.L.: G.L.-106.40 m

Step drawdown test

Date/hour started: 12/7/2006 9:20am Date/hour finished: 12/7/2006 9:20pm Total hours: 12:00
Yield (l/sec) 1st step 1.40 2nd step 2.80 3rd step 4.20 4th step 5.60 5th step 7.00
Water level before start the test (G.L.-m): 106.40
Water level after end of 5th step (G.L.-m): 118.60
Water level after recovery (G.L.-m): 106.40 Recovery hours 2:00

Constant discharge test

Date/hour started: 13/7/2006 12:08am Date/hour finished: 14/7/2006 1:38pm Total hours: 25:30
Yield (l/sec) 4.50
Water level before start of the test (G.L.-m): 106.40
Water level after end of test (G.L.-m): 112.70
Water level after recovery (G.L.-m): 106.40 Recovery hours 1:30
Drawdown (m): 6.30

Revised by:

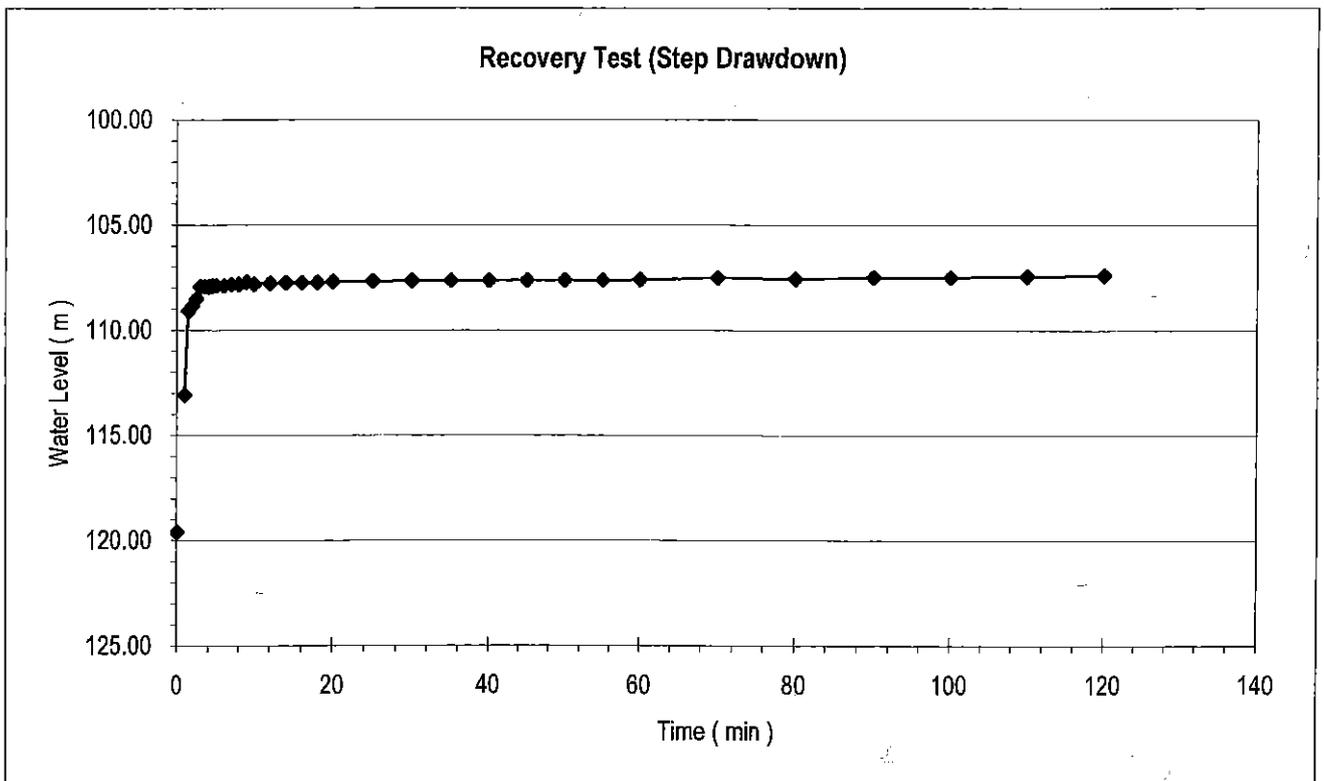
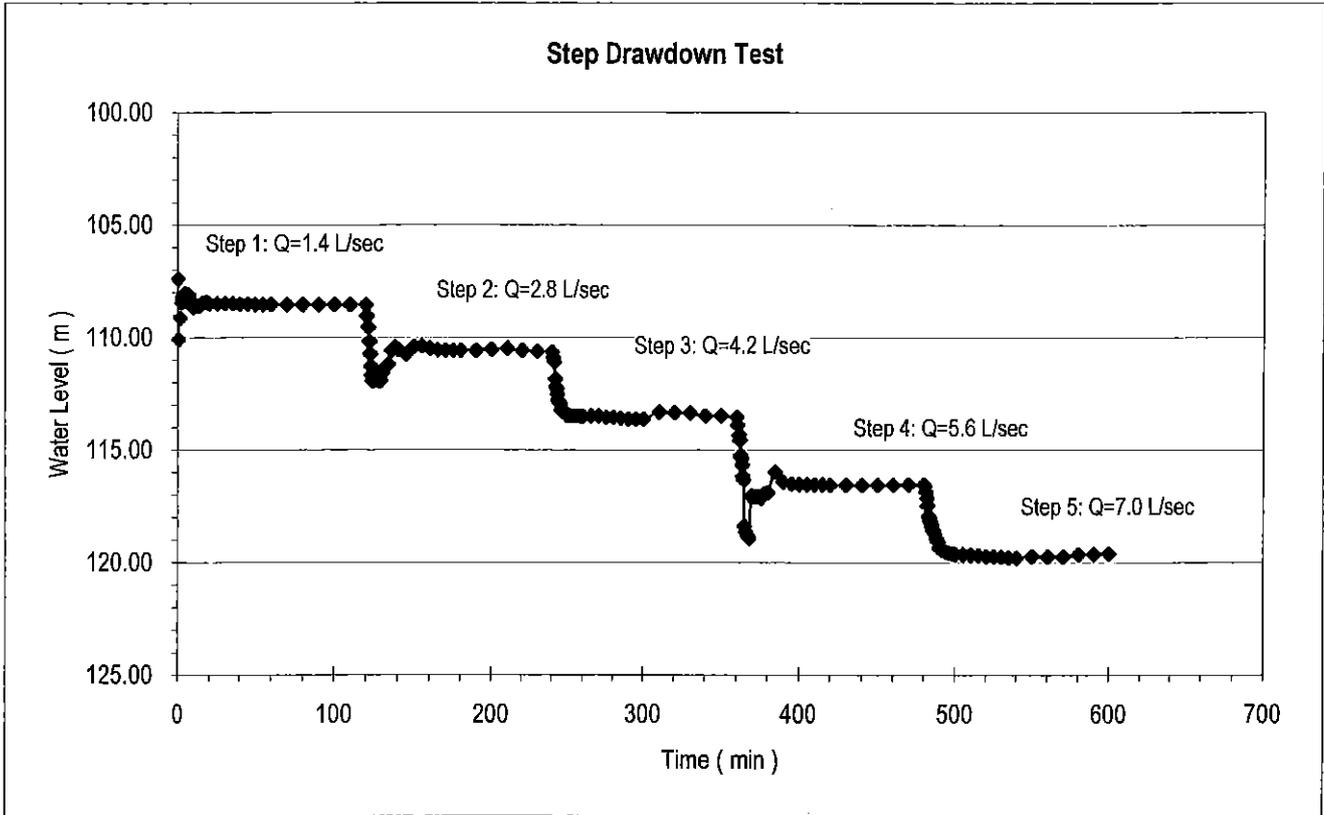
Name :

Date:

Step Drawdown Test

Well Code: I-01
Site Code: I-01
S.W.L. : 107.40 m

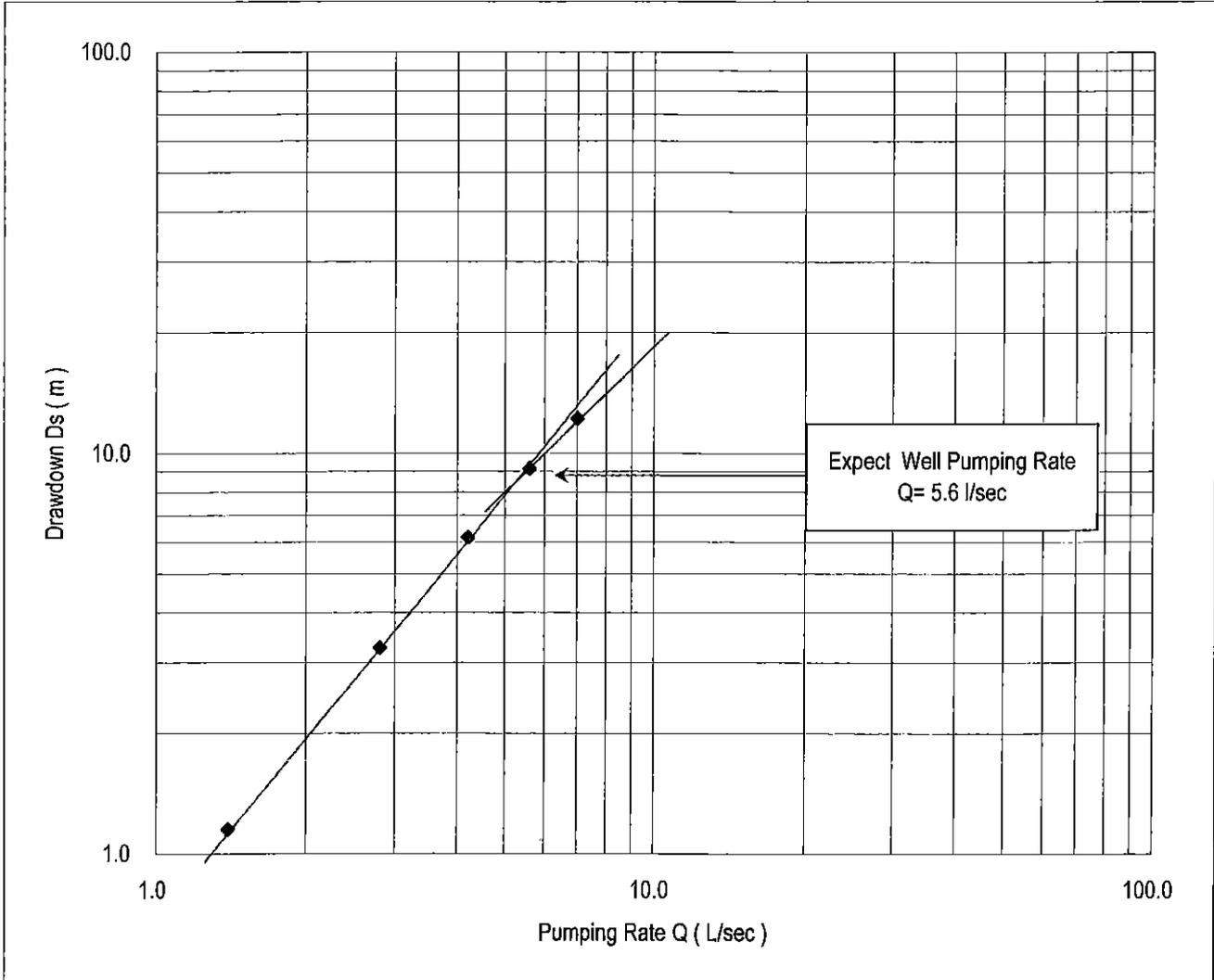
Site Name: Asfal Bani Saba



Step Drawdown Test

Well Code: I-01
 Site Code: I-01
 S.W.L. : 107.40 m

Site Name: Asfal Bani Saba



Step	Q (l/sec)	D.W.L. (m)	Ds (m)
1	1.4	108.55	1.15
2	2.8	110.66	3.26
3	4.2	113.55	6.15
4	5.6	116.55	9.15
5	7.0	119.60	12.20

Constant Discharge & Recovery Test (1/2)

Well Code: I-01 Site code: I-01

Site name: Asfal Bani Saba

District: Al Qafr

Governorate: lbb

Pump on date/hour: 13/7/2006 12:08am

Pump off date/hour: 14/7/2006 12:08am

End of recovery hour: 14/7/2006 1:38pm

Contractor: Mabkhout Al-Abraki

S.W.L (m): 107.40

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 113.70

Operator: Kaid Al-Abraki

Yield (l/sec): 4.5

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity ()	
0.0	107.40	0.00		113.70	6.30		
0.5	112.50	5.10		110.50	3.10		
1.0	112.62	5.22		108.07	0.67		
1.5	112.60	5.20		108.53	1.13		
2.0	112.55	5.15		108.92	1.52		
2.5	112.56	5.16		107.89	0.49		
3.0	112.56	5.16		107.84	0.44		
3.5	112.58	5.18		107.80	0.40		
4.0	112.68	5.28		107.77	0.37		
4.5	112.64	5.24		107.76	0.36		
5.0	112.67	5.27		107.70	0.30		
6.0	112.72	5.32		107.56	0.16		
7.0	112.75	5.35		107.55	0.15		
8.0	112.84	5.44		107.55	0.15		
9.0	112.85	5.45		107.54	0.14		
10.0	112.93	5.53		107.53	0.13		
12.0	112.93	5.53		107.52	0.12		
14.0	112.98	5.58		107.50	0.10		
16.0	112.99	5.59		107.50	0.10		
18.0	113.14	5.74		107.47	0.07		
20.0	113.17	5.77		107.47	0.07		
25.0	113.25	5.85		107.47	0.07		
30.0	113.26	5.86		107.46	0.06		
35.0	113.28	5.88		107.46	0.06		
40.0	113.29	5.89		107.45	0.05		
45.0	113.33	5.93		107.45	0.05		
50.0	113.45	6.05		107.44	0.04		
55.0	113.40	6.00		107.43	0.03		
60.0	113.38	5.98		107.42	0.02		

Constant Discharge & Recovery Test (2/2)

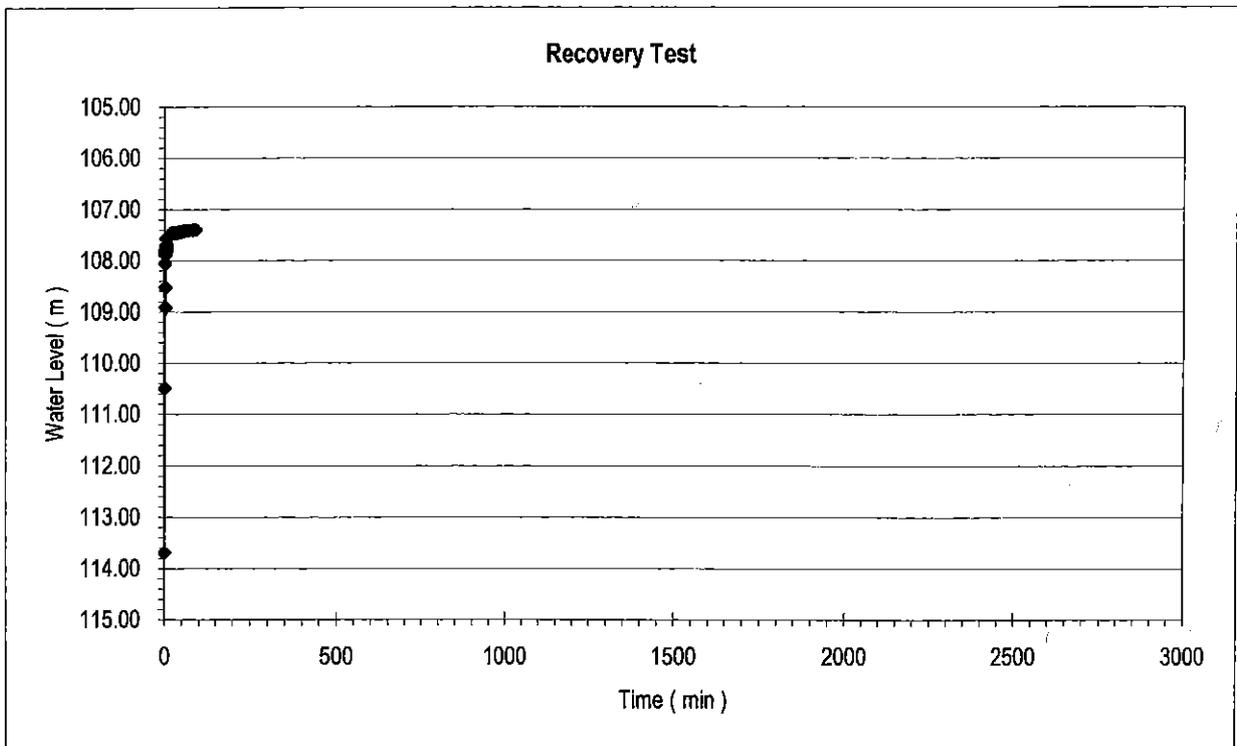
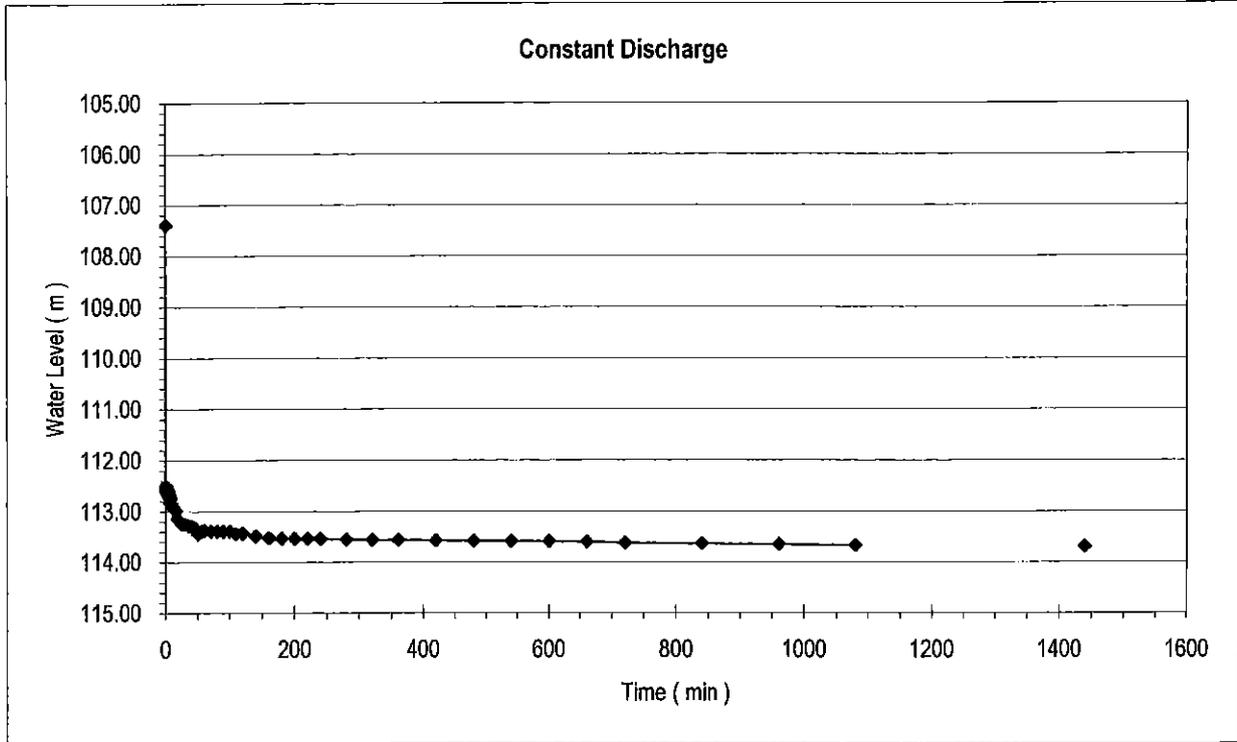
Well Code: I-01 Site code: I-01 Site name: Asfal Bani Saba
 District: Al Qafr Governorate: Ibb

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity ()	
70.0	113.40	6.00		107.41	0.01		
80.0	113.40	6.00		107.41	0.01		
90.0	113.40	6.00		107.40	0.00		
100.0	113.40	6.00					
110.0	113.45	6.05					
120.0	113.44	6.04					
140.0	113.49	6.09					
160.0	113.53	6.13					
180.0	113.54	6.14					
200.0	113.54	6.14					
220.0	113.55	6.15					
240.0	113.55	6.15					
280.0	113.56	6.16					
320.0	113.57	6.17					
360.0	113.57	6.17					
420.0	113.58	6.18					
480.0	113.59	6.19					
540.0	113.60	6.20					
600.0	113.60	6.20					
660.0	113.61	6.21					
720.0	113.63	6.23					
840.0	113.65	6.25					
960.0	113.66	6.26					
1080.0	113.68	6.28					
1200.0							
1320.0							
1440.0	113.70	6.30					
1560.0	113.70	6.30					
1680.0	113.70	6.30					
1800.0	113.70	6.30					
1920.0							
2040.0							
2160.0							
2280.0							
2400.0							

Constant Discharge Test

Well Code: I-01
Site Code: I-01
S.W.L. (m): 107.40
Yield (L/sec): 4.5

Site Name Asfal Bani Saba
D.W.L (m): 113.70 Drawdown (m): 6.30



Pumping Test Report Sheet

Well code: I-02 Site code: I-02 Site name: Al Sana
District: Al Makhader Governorate: Ibb

Target water source: New projected deep well Well depth: 272 m

Contractor: Mabkhout Al-Abraki
Hydrogeologist in charge: Abdul Salam Sallam
Operator: Al Raboi

Date of start of the test: 11/7/2006 Date of end of the test: 16/7/2006
Pump type: Vertical pump Engine: Iveco aifo
Pump installation depth: 210 m Datum level: 0.52 m S.W.L.: G.L.-35.58 m

Step drawdown test

Date/hour started: 13/7/2006 5:10pm Date/hour finished: 14/7/2006 5:10pm Total hours: 24:00
Yield (l/sec) 1st step 1.20 2nd step 2.40 3rd step 3.60 4th step 4.80 5th step 6.00
Water level before start the test (G.L.-m): 35.58
Water level after end of 5th step (G.L.-m): 167.18
Water level after recovery (G.L.-m): 35.58 Recovery hours 14:00

Constant discharge test

Date/hour started: 14/7/2006 6:00pm Date/hour finished: 16/7/2006 9:00pm Total hours: 51:00
Yield (l/sec) 3.90
Water level before start of the test (G.L.-m): 35.58
Water level after end of test (G.L.-m): 140.48
Water level after recovery (G.L.-m): 35.58 Recovery hours 27:00
Drawdown (m): 104.90

Revised by:

Name :

Date:

Step Drawdown Test (1/2)

Well Code: I-02 Site code: I-02 Pump on date/hour: 13/7/2006 5:10pm
 Site name: Al Sana Pump off date/hour: 14/7/2006 3:10am
 District: Al Makhader End of recovery hour: 14/7/2006 5:10pm
 Governorate Ibb S.W.L (m): 36.10

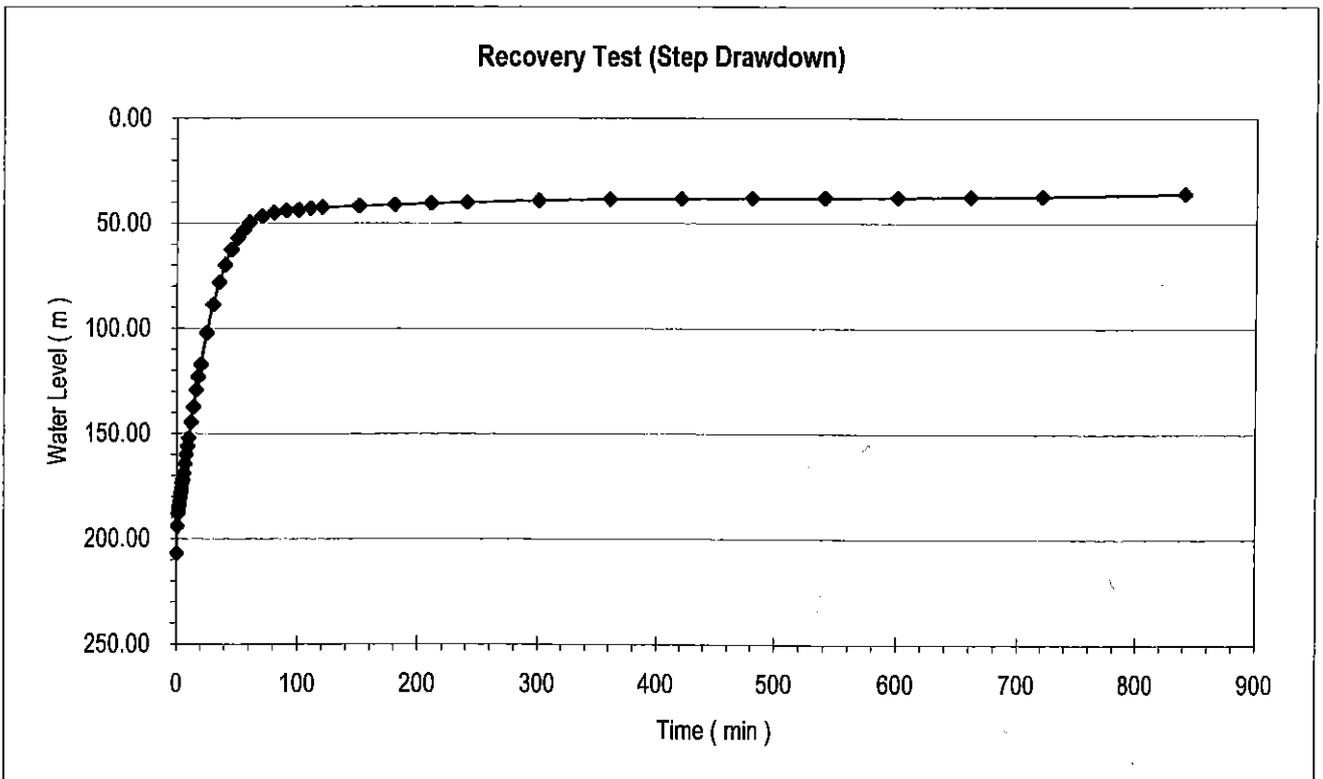
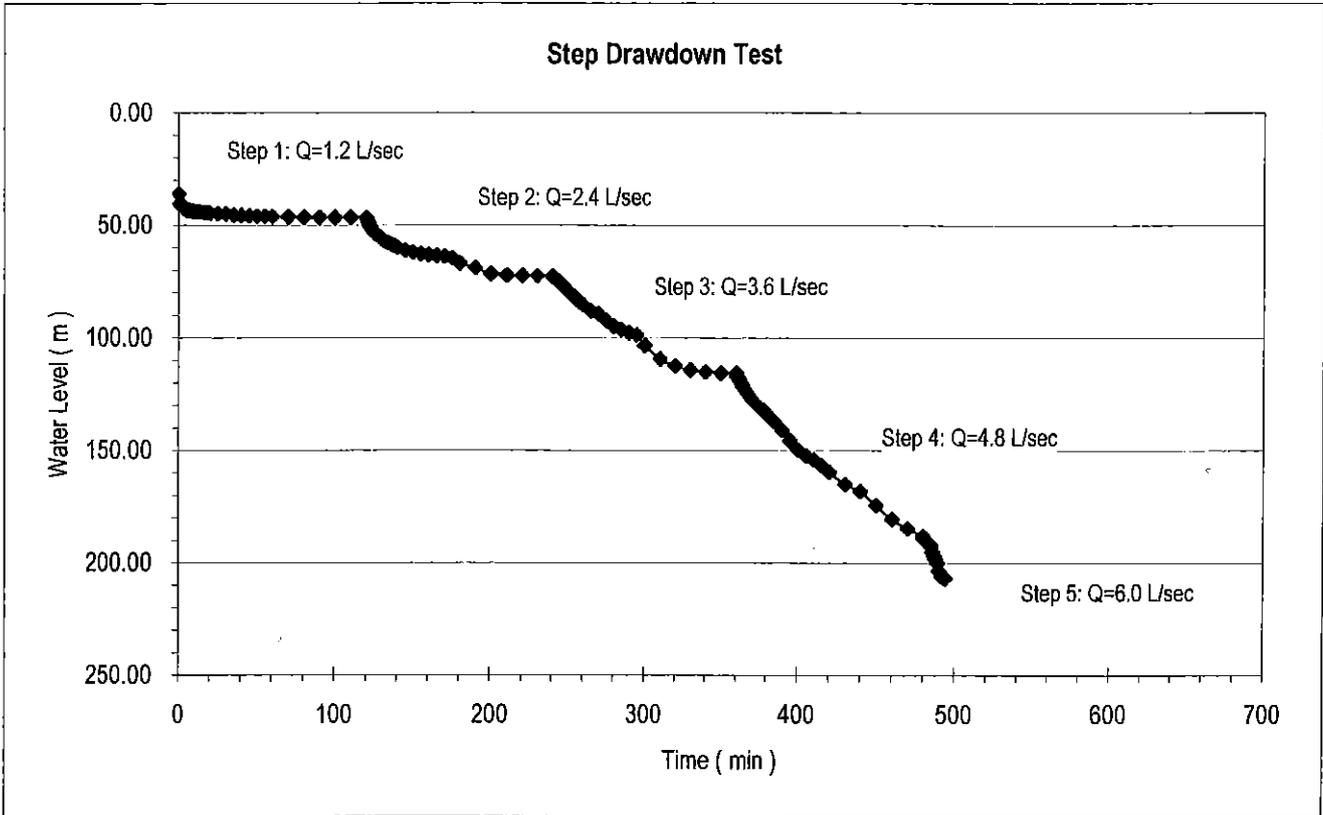
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Al Raboi

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	36.10	1.20	46.61	2.40	72.80	3.60	115.65	4.80	188.00	6.00	207.00
0.5	40.45		47.88		73.12		117.20		188.95		194.00
1.0	40.49		48.65		73.35		117.58		189.50		188.10
1.5	41.32		49.50		73.70		117.98		189.93		186.48
2.0	41.80		50.30		73.99		118.63		190.33		184.45
2.5	42.10		51.00		74.38		119.40		190.67		182.32
3.0	42.40		51.67		74.63		119.92		190.98		180.40
3.5	42.55		52.30		74.98		120.70		191.30		177.88
4.0	42.85		52.85		75.30		121.31		191.70		176.00
4.5	43.00		53.13		75.60		122.00		192.10		173.40
5.0	43.27		53.45		75.88		122.50		192.70		171.90
6.0	43.30		54.05		76.50		123.53		195.25		168.80
7.0	43.32		54.61		77.20		124.40		196.88		164.35
8.0	43.40		55.11		78.03		125.45		198.25		160.18
9.0	43.73		55.59		78.80		126.30		200.06		156.00
10.0	43.83		56.19		79.56		127.15		203.55		152.23
12.0	44.00		57.22		80.80		128.70		206.10		144.65
14.0	44.15		58.00		81.85		129.95		207.00		137.48
16.0	44.30		58.58		83.23		131.18				129.30
18.0	44.45		59.15		84.40		132.13				123.10
20.0	44.60		59.89		85.47		133.70				117.30
25.0	44.87		61.35		88.02		137.28				102.26
30.0	45.06		62.25		89.40		141.18				88.88
35.0	45.40		62.98		92.40		145.70				78.30
40.0	45.64		63.30		94.90		149.75				70.00
45.0	45.85		63.67		96.30		152.28				62.83
50.0	46.00		63.92		97.75		154.05				57.30
55.0	46.09		64.79		98.70		156.58				53.35
60.0	46.19		66.98		103.46		159.60				49.74
70.0	46.34		69.00		109.32		165.05				47.05
80.0	46.43		71.71		112.50		168.25				45.15
90.0	46.53		72.27		114.20		174.40				44.10
100.0	46.54		72.46		115.01		180.60				43.95
110.0	46.60		72.62		115.65		184.68				43.05
120.0	46.61		72.80		115.65		188.00				42.55
150.0											41.90
180.0											41.30
210.0											40.75
240.0											40.25
300.0											39.40

Step Drawdown Test

Well Code: I-02
 Site Code: I-02
 S.W.L. : 36.10 m

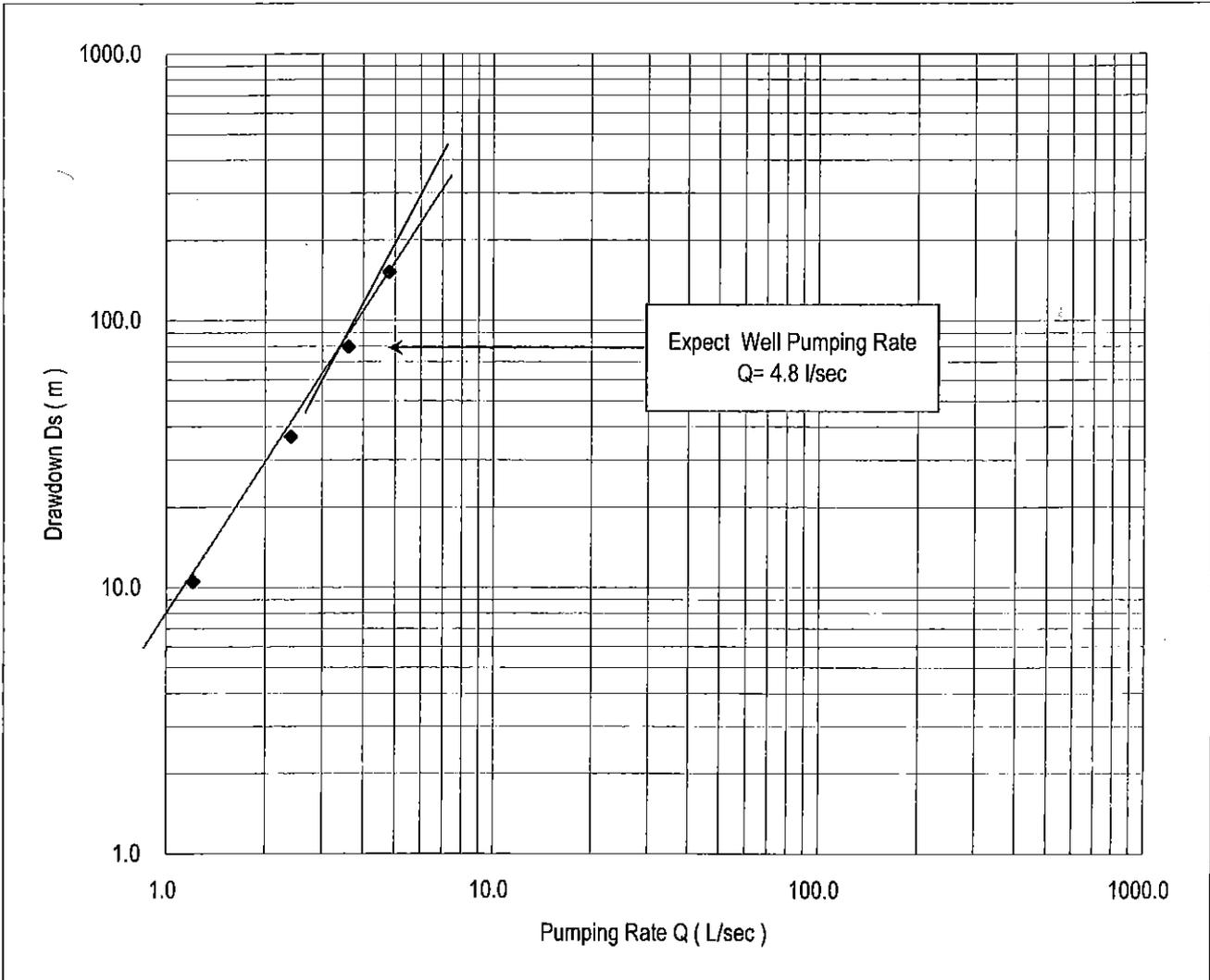
Site Name: Al Sana



Step Drawdown Test

Well Code: I-02
 Site Code: I-02
 S.W.L. : 36.10 m

Site Name: Al Sana



Step	Q (l/sec)	D.W.L.(m)	Ds (m)
1	1.2	46.61	10.51
2	2.4	72.80	36.70
3	3.6	115.65	79.55
4	4.8	188.00	151.90
5	6.0		

Constant Discharge & Recovery Test (1/2)

Well Code: I-02 Site code: I-02

Site name: Al Sana

Pump on date/hour: 14/7/2006 6:00pm

District: Al Makhader

Pump off date/hour: 14/7/2006 12:08am

Governorate: Ibb

End of recovery hour: 16/7/2006 9:00pm

Contractor: Mabkhout Al-Abraki

S.W.L (m): 36.10

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 141.00

Operator: Al Raboi

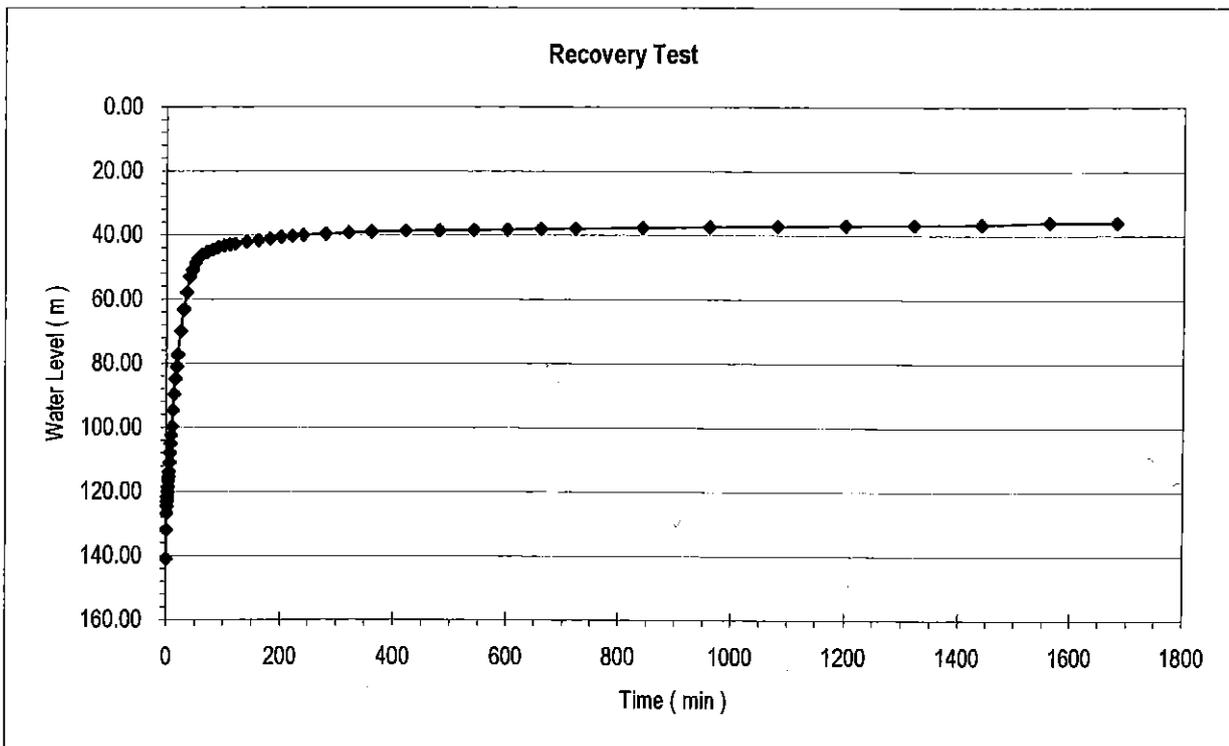
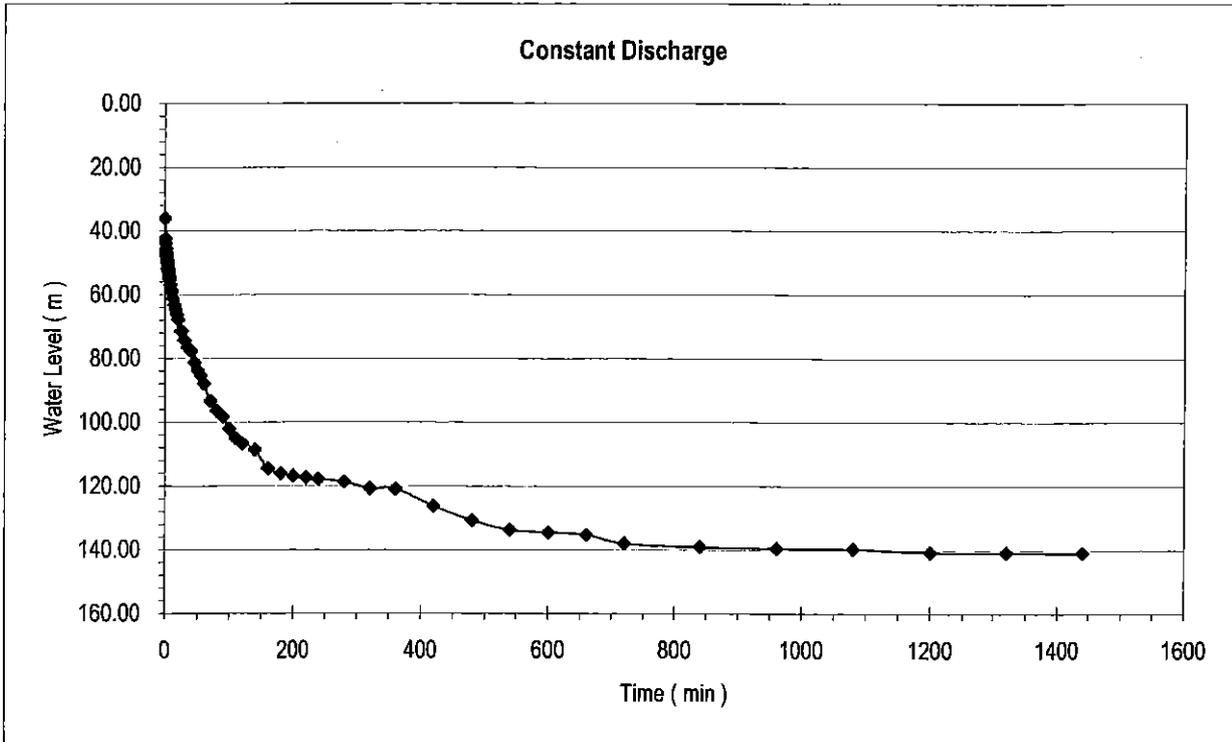
Yield (l/sec): 3.9

Duration (min)	Constant Dischrge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (μ S/cm)	
0.0	36.10	0.00		141.00	104.90		
0.5	42.34	6.24		132.10	96.00		
1.0	44.00	7.90		126.93	90.83		
1.5	45.61	9.51		124.64	88.54		
2.0	46.84	10.74		123.20	87.10		
2.5	47.95	11.85		121.70	85.60		
3.0	48.98	12.88		120.15	84.05		
3.5	50.01	13.91		118.59	82.49		
4.0	50.98	14.88		116.92	80.82		
4.5	51.68	15.58		115.49	79.39		
5.0	52.60	16.50		113.90	77.80		
6.0	54.10	18.00		111.03	74.93		
7.0	55.20	19.10		108.00	71.90		
8.0	56.92	20.82		105.10	69.00		
9.0	58.32	22.22		102.58	66.48		
10.0	59.24	23.14		99.87	63.77		
12.0	61.35	25.25		94.73	58.63		
14.0	63.22	27.12		89.65	53.55		
16.0	64.81	28.71		85.00	48.90		
18.0	66.26	30.16		81.15	45.05		
20.0	67.90	31.80		77.53	41.43		
25.0	71.50	35.40		70.05	33.95		
30.0	74.30	38.20		63.35	27.25		
35.0	76.69	40.59		58.07	21.97		
40.0	77.87	41.77		53.13	17.03		
45.0	81.43	45.33		50.95	14.85		
50.0	83.87	47.77		48.78	12.68		
55.0	85.43	49.33		47.32	11.22		
60.0	88.10	52.00		46.36	10.26	610	

Constant Discharge Test

Well Code: I-02
Site Code: I-02
S.W.L. (m): 36.10
Yield (L/sec): 3.9

Site Name Al Sana
D.W.L. (m): 141.00 Drawdown (m): 104.90



Pumping Test Report Sheet

Well code: I-03 Site code: I-03 Site name: Mamasa Al Marqab
District: Al Makhader Governorate: Ibb

Target water source: New projected deep well Well depth: 78 m

Contractor: Mabkhout Al-Abraki
Hydrogeologist in charge: Abudul Salam Sallam
Operator: Hosein Jammel

Date of start of the test: 15/7/2006 Date of end of the test: 19/7/2006
Pump type: Vertical pump Engine: Iveco aifo
Pump installation depth: 69 m Datum level: 0.72 m S.W.L.: G.L.-47.78 m

Step drawdown test

Date/hour started: 16/7/2006 3:45pm Date/hour finished: 17/7/2006 2:45pm Total hours: 23:00
Yield (l/sec) 1st step 1.10 2nd step 1.50 3rd step 2.10 4th step 2.50 5th step 3.00
Water level before start the test (G.L.-m): 47.78
Water level after end of 5th step (G.L.-m): 65.58
Water level after recovery (G.L.-m): 47.78 Recovery hours 13:00

Constant discharge test

Date/hour started: 17/7/2006 2:52pm Date/hour finished: 20/7/2006 8:52am Total hours: 64:00
Yield (l/sec) 1.60
Water level before start of the test (G.L.-m): 47.78
Water level after end of test (G.L.-m): 54.35
Water level after recovery (G.L.-m): 47.78 Recovery hours 40:00
Drawdown (m): 6.57

Revised by:

Name :

Date:

Provisional Step Drawdown Test

Well Code: I-03 Site code: I-03
 Site name: Mamasa Al Marqab
 District: Al Makhader
 Governorate Ibb

Pump on date/hour: 15/7/2006 11:05pm
 Pump off date/hour: 16/7/2006 1:35am
 End of recovery hour: 16/7/2006 3:35pm
 S.W.L (m): 48.50

Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hosein Jammel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	48.50	1.00	51.62	1.50	53.73	2.00	55.77	2.50	60.40	3.00	66.30
0.5	52.20		51.73		53.95		56.51		60.64		60.75
1.0	52.50		51.75		54.06		56.60		60.96		57.62
1.5	52.68		51.78		54.21		56.69		61.22		56.98
2.0	52.64		51.90		54.36		56.78		61.52		56.58
2.5	52.50		51.92		54.43		56.86		61.76		56.00
3.0	52.43		52.96		54.55		57.03		61.97		55.65
3.5	52.42		52.04		54.61		57.14		62.18		55.27
4.0	52.37		52.00		54.70		57.25		62.36		54.88
4.5	52.22		52.16		54.76		57.46		62.53		54.52
5.0	52.10		52.25		54.85		57.64		62.65		54.18
6.0	51.97		52.33		54.92		57.98		62.94		53.60
7.0	51.86		52.46		55.00		58.31		63.13		52.95
8.0	51.78		52.62		55.06		58.43		63.37		52.43
9.0	51.71		52.80		55.13		58.56		63.48		51.94
10.0	51.68		53.02		55.17		58.65		63.64		51.53
12.0	52.00		53.13		55.23		58.93		63.87		50.78
14.0	51.98		53.37		55.46		59.27		64.12		50.18
16.0	51.70		53.51		55.53		59.00		64.53		49.75
18.0	51.52		53.60		55.62		59.08		64.87		49.45
20.0	51.42		53.64		55.70		59.30		64.99		49.25
22.0	51.39		53.67		55.71		59.45		65.27		49.15
24.0	51.43		53.69		55.72		59.68		65.65		49.05
26.0	51.47		53.72		55.73		59.95		65.85		49.00
28.0	51.54		53.73		55.75		60.20		65.98		48.96
30.0	51.62		53.73		55.77		60.40		66.30		48.92
60.0											48.90
90.0											48.87
120.0											48.78
180.0											48.72
240.0											48.69
300.0											48.64
420.0											48.60
540.0											48.56
660.0											48.54
780.0											48.52
840.0											48.50

Step Drawdown Test (1/2)

Well Code: I-03 Site code: I-03
 Site name: Mamasa Al Marqab
 District: Al Makhader
 Governorate lbb

Pump on date/hour: 16/7/2006 3:45pm
 Pump off date/hour: 17/7/2006 1:45am
 End of recovery hour: 17/7/2006 2:45pm
 S.W.L (m): 48.50

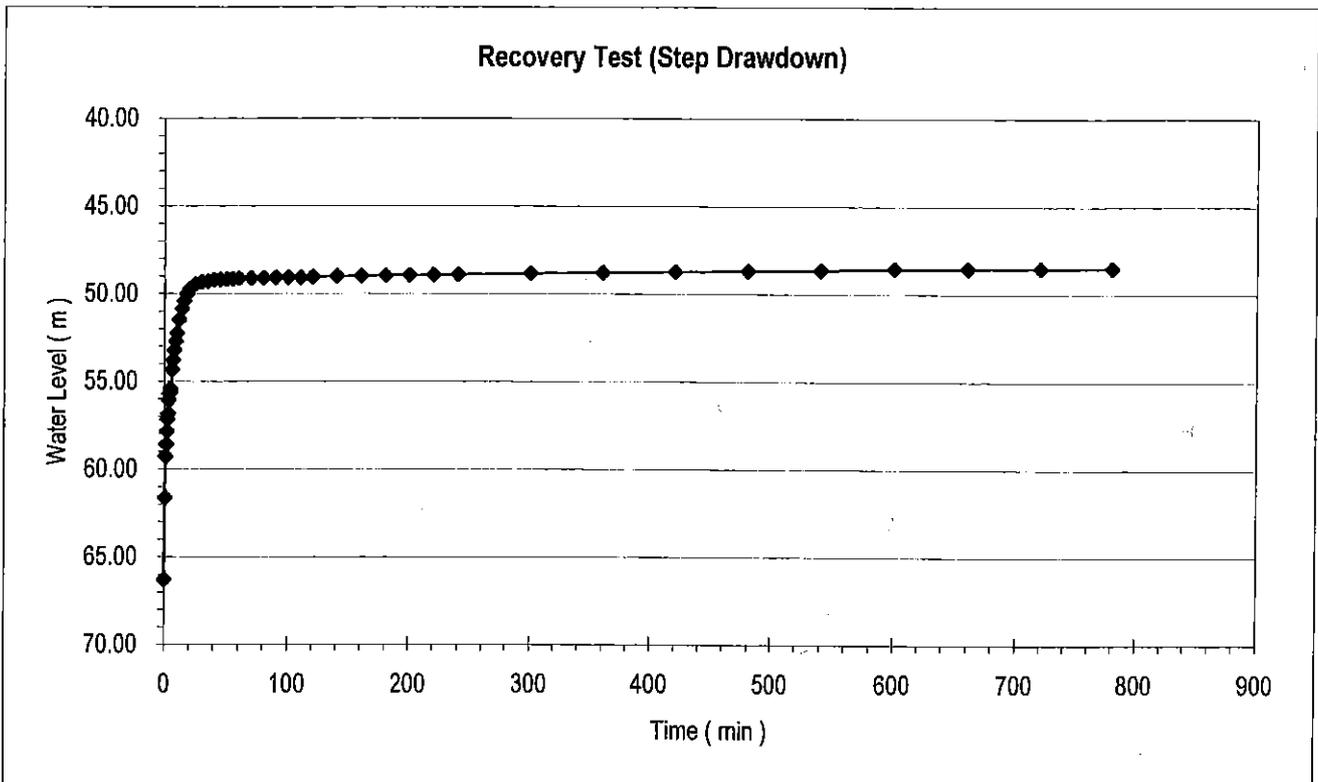
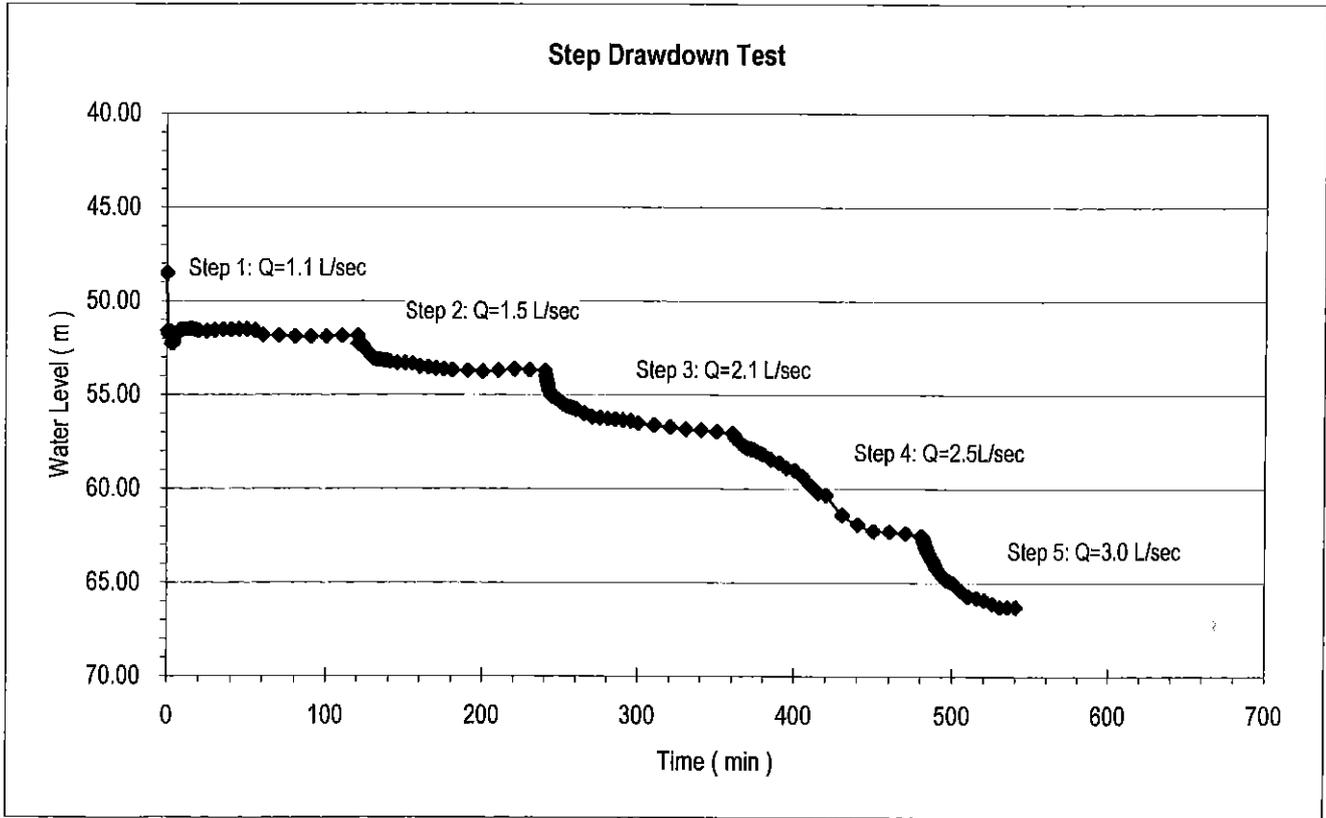
Contractor: Mabkhout Al-Abraki
 Hydrogeologist: Abudul Salam Sallam
 Operator: Hosein Jammel

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	48.50	1.10	51.86	1.50	53.74	2.00	57.05	2.50	62.52	3.00	66.30
0.5	51.60		52.27		54.00		57.09		62.53		61.65
1.0	51.80		52.30		54.24		57.13		62.55		59.27
1.5	51.64		52.32		54.37		57.20		62.67		58.58
2.0	51.65		52.34		54.52		57.28		62.81		57.85
2.5	51.78		52.36		54.78		57.33		62.93		57.15
3.0	52.27		52.37		54.82		57.40		63.06		56.85
3.5	52.25		52.46		54.92		57.43		63.18		56.07
4.0	52.10		52.53		55.06		57.48		63.29		55.70
4.5	51.90		52.55		55.09		57.53		63.40		55.40
5.0	51.82		52.62		55.11		57.56		63.48		55.60
6.0	51.79		52.68		55.13		57.64		63.63		54.35
7.0	51.62		52.76		55.21		57.70		63.76		53.80
8.0	51.54		52.87		55.26		57.75		63.90		53.23
9.0	51.53		52.97		55.32		57.82		64.08		52.73
10.0	51.52		53.07		55.40		57.85		64.24		52.26
12.0	51.51		53.13		55.51		57.90		64.48		51.50
14.0	51.50		53.15		55.59		57.93		64.66		50.87
16.0	51.50		53.17		55.66		58.03		64.86		50.42
18.0	51.55		53.20		55.72		58.11		64.94		50.04
20.0	51.61		53.24		55.80		58.19		65.00		49.75
25.0	51.63		53.29		56.00		58.44		65.42		49.47
30.0	51.58		53.31		56.18		58.62		65.72		49.35
35.0	51.52		53.35		56.23		58.91		65.80		49.31
40.0	51.54		53.50		56.28		59.02		65.92		49.24
45.0	51.53		53.53		56.32		59.33		66.12		49.20
50.0	51.53		53.60		56.36		59.80		66.30		49.20
55.0	51.58		53.64		56.40		60.22		66.30		49.17
60.0	51.82		53.68		56.51		60.33		66.30		49.15
70.0	51.85		53.73		56.62		61.40				49.13
80.0	51.90		53.77		56.73		61.90				49.12
90.0	51.92		53.72		56.84		62.25				49.10
100.0	51.89		53.64		56.89		62.27				49.09
110.0	51.86		53.68		56.96		62.36				49.08
120.0	51.86		53.74		57.07		62.52				49.06
140.0											49.02
160.0											48.99
180.0											48.98
200.0											48.96
220.0											48.94

Step Drawdown Test

Well Code: I-03
Site Code: I-03
S.W.L. : 48.50 m

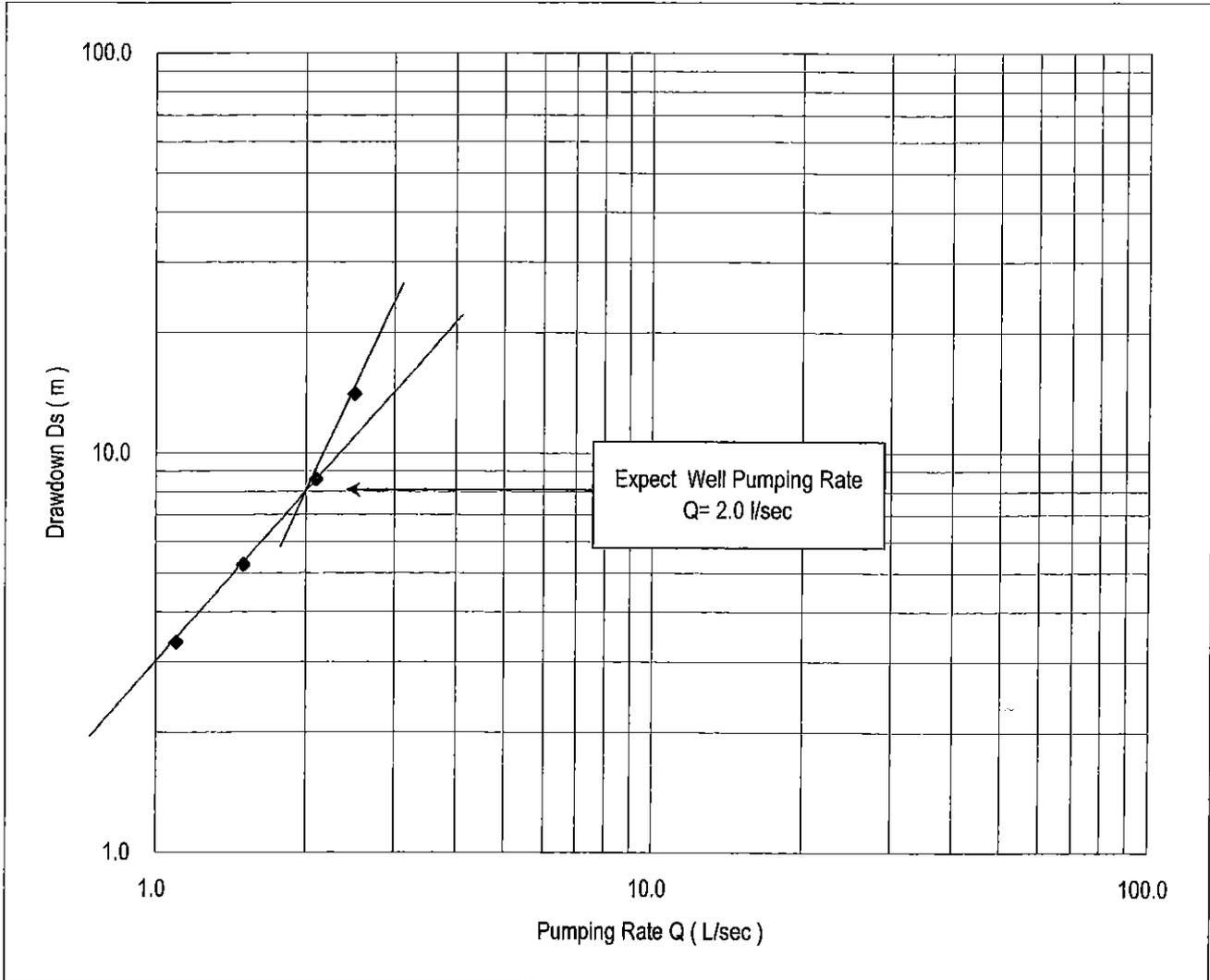
Site Name: Mamasa Al Marqab



Step Drawdown Test

Well Code: I-03
 Site Code: I-03
 S.W.L. : 48.50 m

Site Name: Mamasa Al Marqab



Step	Q (l/sec)	D.W.L.(m)	D s (m)
1	1.1	51.86	3.36
2	1.5	53.74	5.24
3	2.1	57.07	8.57
4	2.5	62.52	14.02
5	3.0		

Constant Discharge & Recovery Test (1/2)

Well Code: I-03 Site code: I-03

Site name: Mamasa Al Marqab

Pump on date/hour: 17/7/2006 2:52am

District: Al Makhader

Pump off date/hour: 18/7/2006 2:52am

Governorate: Ibb

End of recovery hour: 20/7/2006 8:52am

Contractor: Mabkhout Al-Abraki

S.W.L (m): 48.50

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 55.07

Operator: Hosein Jammel

Yield (l/sec): 1.6

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (µS/cm)	
0.0	48.50	0.00		55.07	6.57		
0.5	52.40	3.90		51.45	2.95		
1.0	52.52	4.02		51.00	2.50		
1.5	52.73	4.23		50.98	2.48		
2.0	52.67	4.17		50.97	2.47		
2.5	52.64	4.14		50.93	2.43		
3.0	52.62	4.12		50.86	2.36		
3.5	52.79	4.29		50.80	2.30		
4.0	52.87	4.37		50.74	2.24		
4.5	52.98	4.48		50.67	2.17		
5.0	53.06	4.56		50.62	2.12		
6.0	53.10	4.60		50.52	2.02		
7.0	53.14	4.64		50.41	1.91		
8.0	53.22	4.72		50.33	1.83		
9.0	53.36	4.86		50.26	1.76		
10.0	53.49	4.99		50.21	1.71		
12.0	53.59	5.09		50.12	1.62		
14.0	53.56	5.06		50.04	1.54		
16.0	53.57	5.07		49.98	1.48		
18.0	53.55	5.05		49.95	1.45		
20.0	53.59	5.09		49.93	1.43		
25.0	53.68	5.18		49.90	1.40		
30.0	53.70	5.20		49.86	1.36		
35.0	53.87	5.37		49.80	1.30		
40.0	54.10	5.60		49.78	1.28		
45.0	54.32	5.82		49.76	1.26		
50.0	54.34	5.84		49.74	1.24		
55.0	54.35	5.85		49.72	1.22		
60.0	54.36	5.86		49.70	1.20		

Constant Discharge & Recovery Test (2/2)

Well Code: I-03 Site code: I-03 Site name: Mamasa Al Marqab
 District: Al Makhader Governorate: Ibb

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (μ S/cm)	
70.0	54.40	5.90		49.70	1.20		
80.0	54.41	5.91		49.70	1.20		
90.0	54.50	6.00		49.69	1.19		
100.0	54.56	6.06		49.69	1.19		
110.0	54.56	6.06		49.69	1.19		
120.0	54.57	6.07		49.69	1.19		
140.0	54.59	6.09		49.68	1.18	780	
160.0	54.61	6.11		49.68	1.18	780	
180.0	54.65	6.15		49.67	1.17		
200.0	54.61	6.11		49.67	1.17		
220.0	54.59	6.09		49.67	1.17		
240.0	54.60	6.10		49.67	1.17	780	
280.0	54.55	6.05		49.66	1.16		
320.0	54.86	6.36		49.66	1.16		
360.0	54.81	6.31		49.65	1.15		
420.0	54.81	6.31		49.62	1.12	780	
480.0	54.96	6.46		49.59	1.09		
540.0	55.05	6.55		49.55	1.05		
600.0	55.10	6.60		49.50	1.00		
660.0	55.39	6.89		49.47	0.97		
720.0	55.55	7.05		49.43	0.93	780	
840.0	55.35	6.85		49.36	0.86		
960.0	55.12	6.62		49.29	0.79		
1080.0	54.98	6.48		49.23	0.73	780	
1200.0	54.45	5.95		49.16	0.66		
1320.0	54.74	6.24		49.10	0.60		
1440.0	55.07	6.57		49.01	0.51		
1560.0				48.96	0.46		
1680.0				48.90	0.40		
1800.0				48.83	0.33		
1920.0				48.76	0.26		
2040.0				48.70	0.20		
2160.0				48.64	0.14		
2280.0				48.56	0.06		
2400.0				48.50	0.00		

Constant Discharge Test

Well Code: I-03

Site Code: I-03

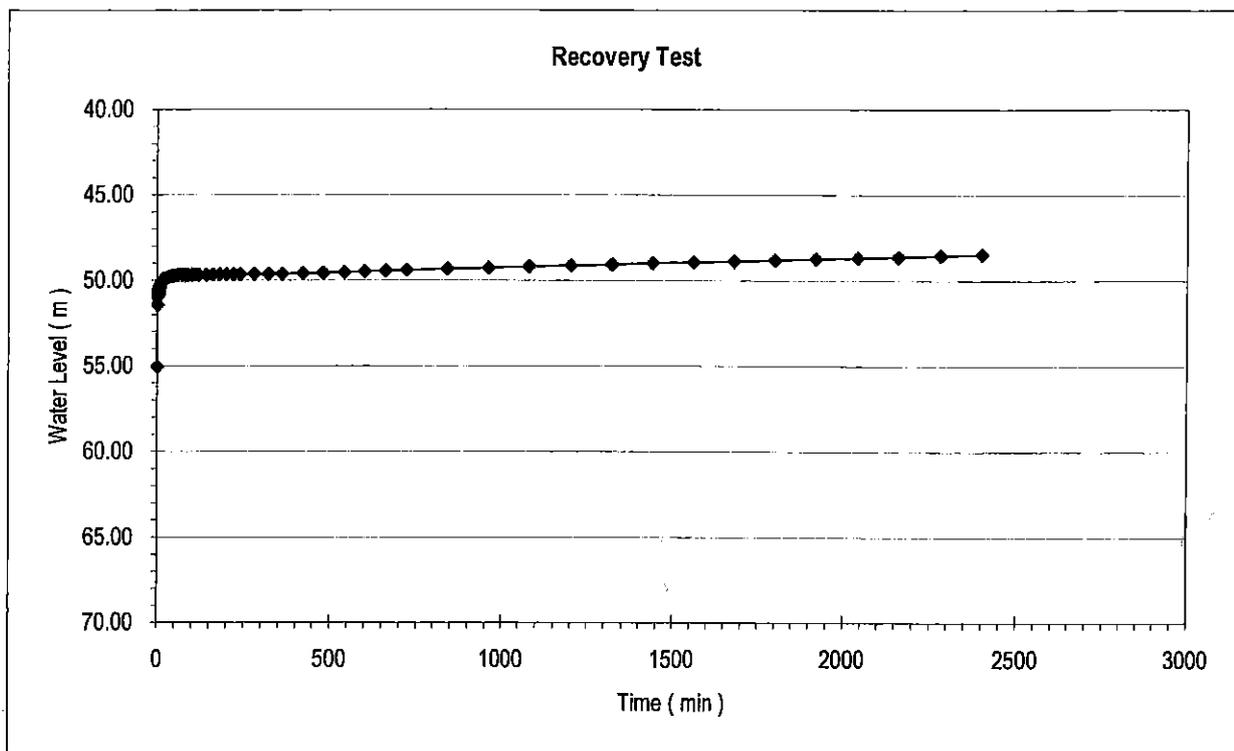
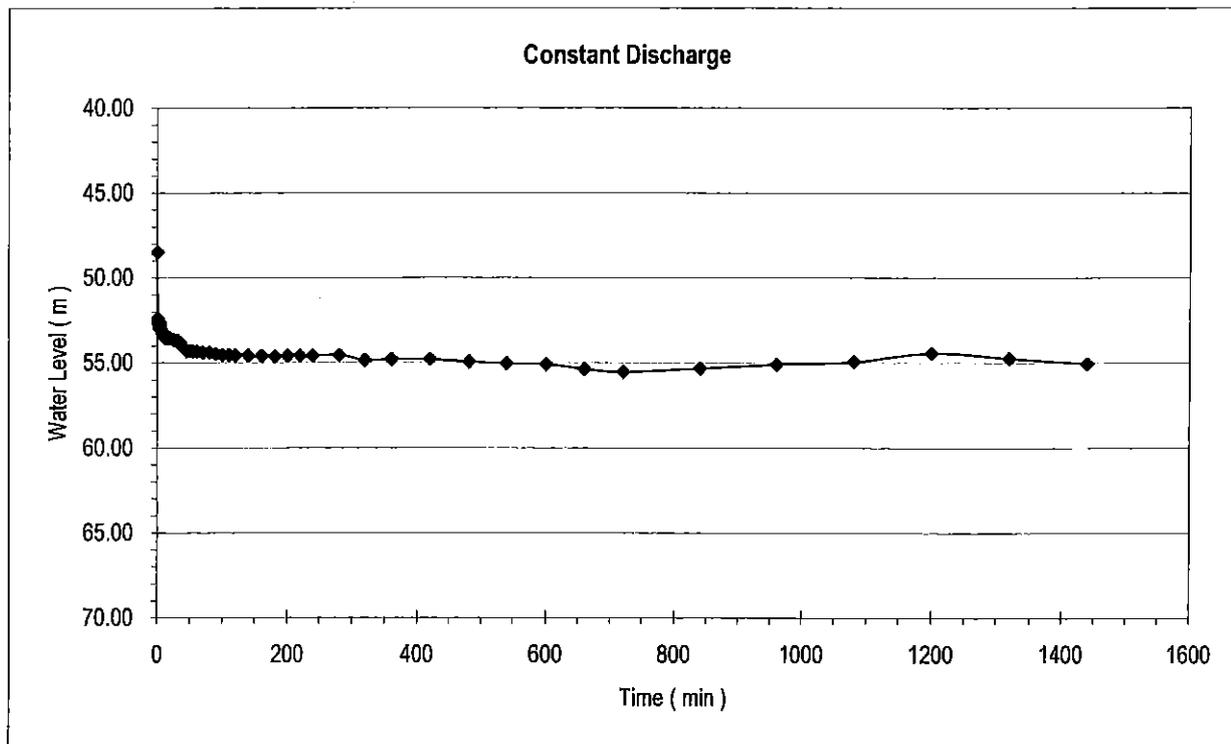
S.W.L. (m): 48.50

Yield (L/sec): 1.6

Site Name Mamasa Al Marqab

D.W.L. (m): 55.07

Drawdown (m): 6.57



Pumping Test Report Sheet

Well code: I-04 Site code: I-04 Site name: Al Jahlah & Al Meshraq
District: Ibb Governorate: Ibb

Target water source: New projected deep well Well depth: 305 m

Contractor: Mabkhout Al-Abraki
Hydrogeologist in charge: Abudul Salam Sallam
Operator: Al Raboi

Date of start of the test: 17/7/2006 Date of end of the test: 21/7/2006
Pump type: vertical pump Engine: IVEO aifo
Pump installation depth: 219 m Datum level: 0.65 m S.W.L.: G.L.-14.85 m

Step drawdown test

Date/hour started: 18/7/2006 7:15 pm Date/hour finished: 19/7/2006 4:15 pm Total hours: 21:00
Yield (l/sec) 1st step 1.70 2nd step 3.40 3rd step 5.10 4th step 6.80 5th step _____
Water level before start the test (G.L.-m): 14.85
Water level after end of 4th step (G.L.-m): 215.32
Water level after recovery (G.L.-m): 14.85 Recovery hours 11:00

Constant discharge test

Date/hour started: 19/7/2006 4:31 pm Date/hour finished: 21/7/2006 5:31 pm Total hours: 49:00
Yield (l/sec) 4.10
Water level before start of the test (G.L.-m): 14.85
Water level after end of test (G.L.-m): 110.15
Water level after recovery (G.L.-m): 14.85 Recovery hours 25:00
Drawdown (m): 95.30

Revised by:

Name :

Date:

Step Drawdown Test

Well Code: I-04 Site code: I-04

Pump on date/hour: 18/7/2006 7:15pm

Site name: Al Jahlah & Al Meshraq

Pump off date/hour: 19/7/2006 5:15am

District: Ibb

End of recovery hour: 19/7/2006 4:15pm

Governorate Ibb

S.W.L (m): 15.50

Contractor: Mabkhout Al-Abraki

Hydrogeologist: Abudul Salam Sallam

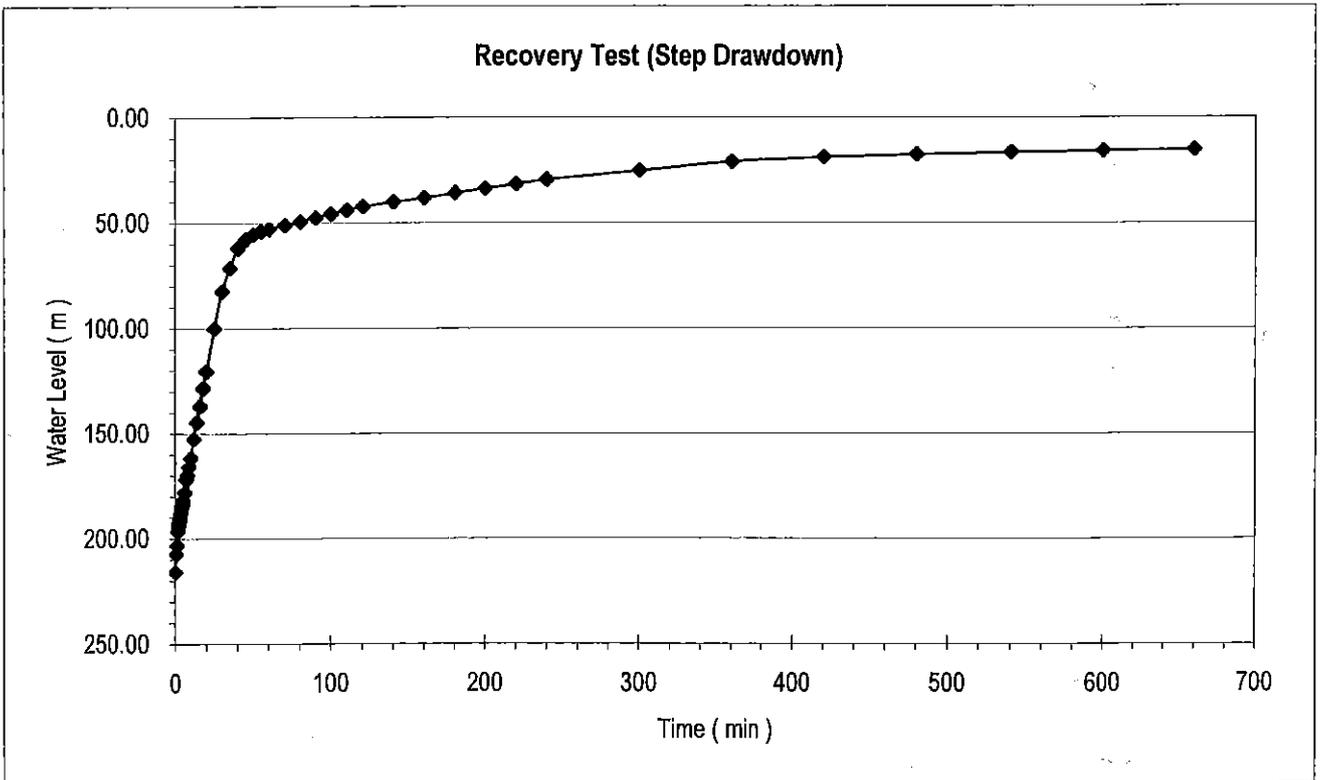
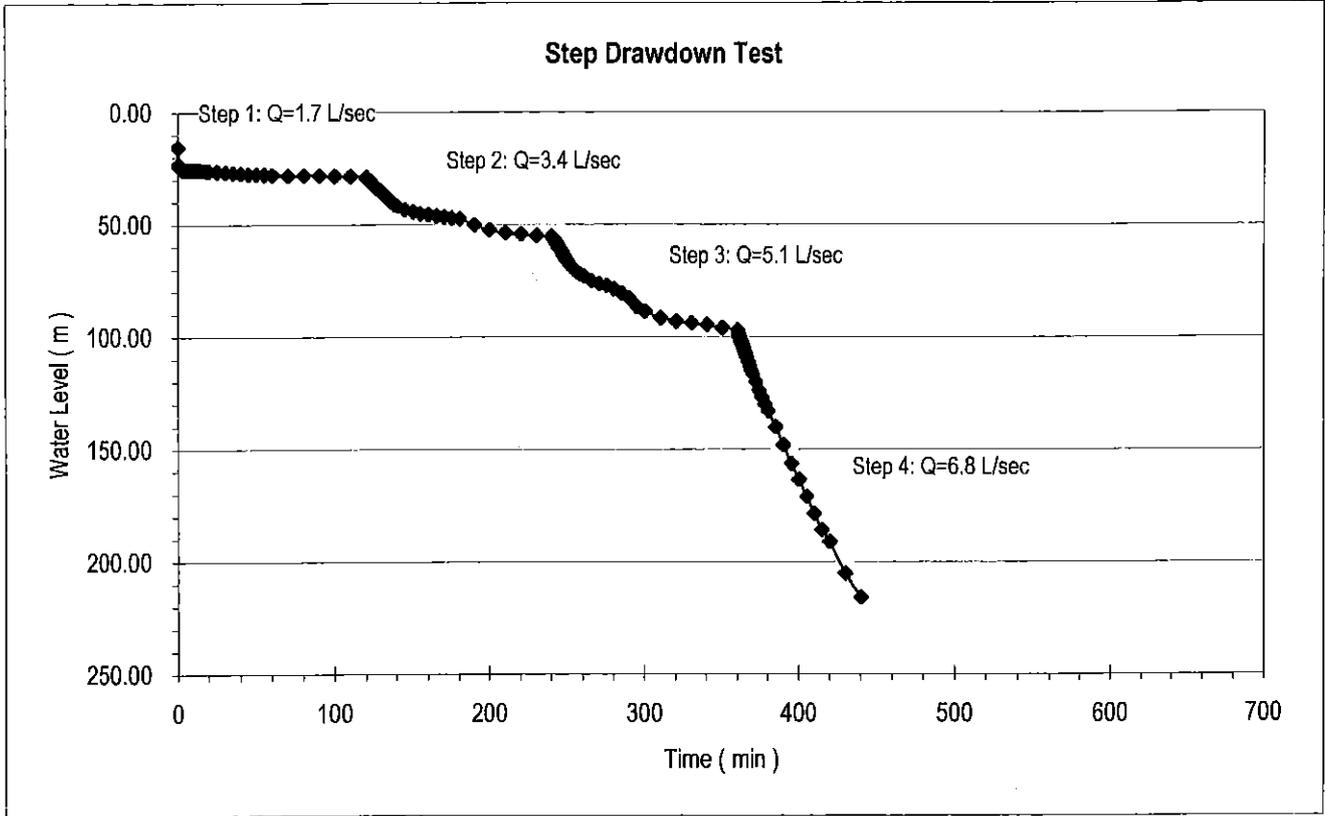
Operator: Al Raboi

Duration (min)	1st Step		2nd Step		3rd Step		4th Step		5th Step		Recovery (m)
	W.L. (m)	Yield (l/sec)									
0.0	15.50	1.70	29.00	3.40	55.43	5.10	96.87	6.80			215.97
0.5	23.20		29.87		55.99		98.70				207.40
1.0	24.25		29.98		56.54		99.80				203.30
1.5	24.70		30.05		56.98		100.60				196.60
2.0	25.10		30.19		57.34		101.58				194.00
2.5	25.40		31.04		57.71		102.43				192.25
3.0	25.61		31.46		58.53		103.40				190.20
3.5	25.66		31.87		59.27		104.45				188.00
4.0	25.70		32.27		59.71		105.45				185.30
4.5	25.72		32.58		60.49		106.39				183.98
5.0	25.83		32.95		61.00		107.42				181.73
6.0	25.80		33.82		61.97		109.32				178.04
7.0	25.72		34.21		63.18		111.18				171.95
8.0	25.58		34.72		64.38		113.12				169.70
9.0	25.62		35.19		65.59		115.02				165.89
10.0	25.66		35.74		66.62		116.82				161.68
12.0	25.78		37.13		68.48		120.20				152.68
14.0	25.89		38.72		70.10		123.92				144.75
16.0	25.98		39.98		71.24		126.96				136.95
18.0	26.08		41.15		72.37		130.15				128.52
20.0	26.22		41.84		72.86		133.00				120.50
25.0	26.46		43.42		75.08		140.24				100.15
30.0	26.72		44.42		76.40		148.10				82.50
35.0	26.94		45.42		77.27		156.40				71.56
40.0	27.28		45.80		78.80		163.50				62.20
45.0	27.52		46.28		80.79		171.17				58.10
50.0	27.74		46.79		83.03		178.75				55.85
55.0	27.85		47.35		86.82		185.98				54.20
60.0	28.00		47.64		88.79		191.20				53.08
70.0	28.21		50.32		91.60		205.26				51.30
80.0	28.19		52.54		93.18		215.97				49.53
90.0	28.31		53.76		93.89						47.75
100.0	28.51		54.35		94.54						45.99
110.0	28.61		54.94		96.00						44.22
120.0	29.00		55.43		96.87						42.44
140.0											40.34
160.0											38.28
180.0											36.10
200.0											33.95
220.0											31.79

Step Drawdown Test

Well Code: 1-04
Site Code: 1-04
S.W.L. : 15.50 m

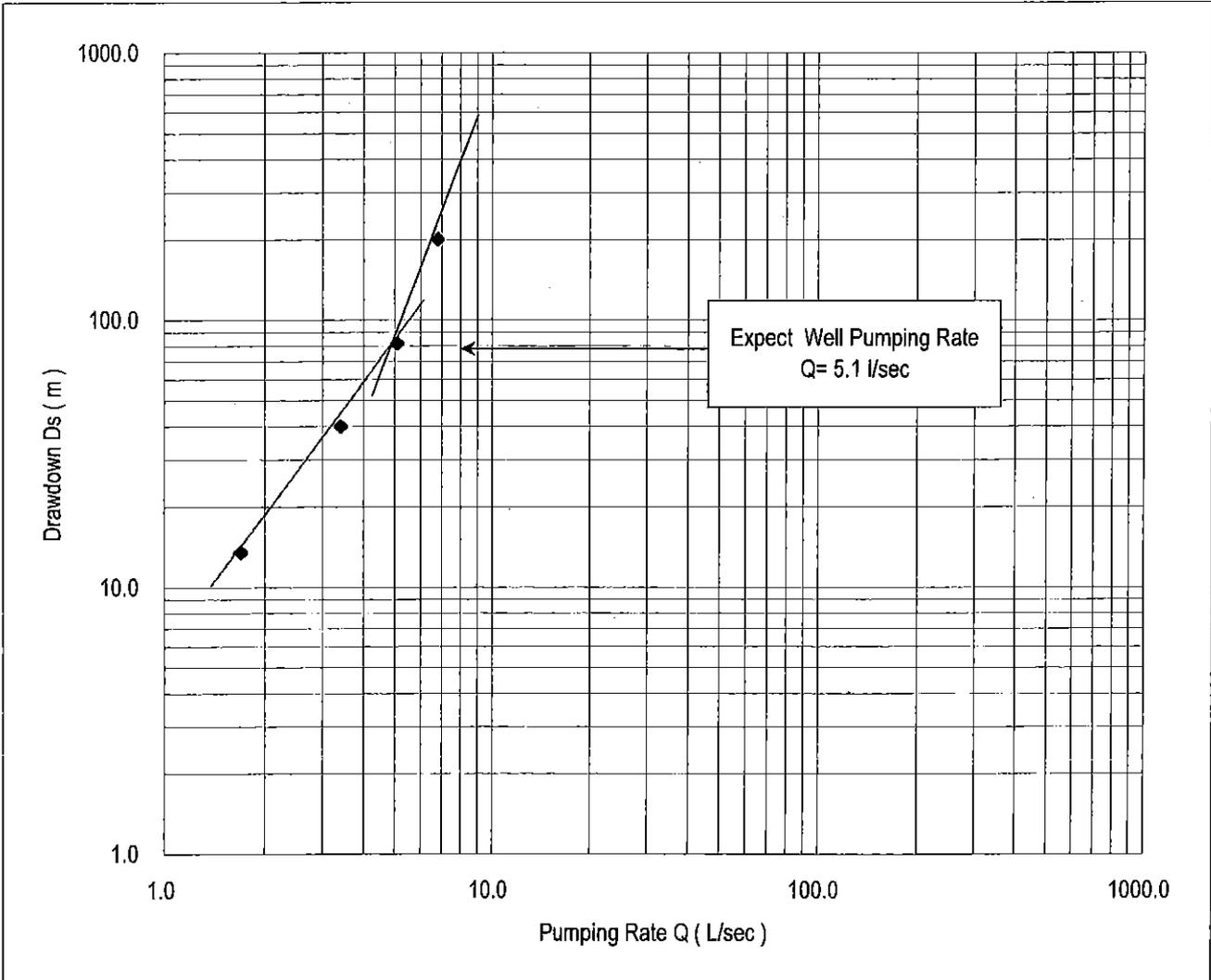
Site Name: Al Jahlah & Al Meshraq



Step Drawdown Test

Well Code: I-04
 Site Code: I-04
 S.W.L. : 15.50 m

Site Name: Al Jahlah & Al Meshraq



Step	Q (l/sec)	D.W.L.(m)	Ds (m)
1	1.7	29.00	13.50
2	3.4	55.43	39.93
3	5.1	96.87	81.37
4	6.8	215.97	200.47
5			

Constant Discharge & Recovery Test (1/2)

Well Code: I-04 Site code: I-04

Site name: Al Jahlah & Al Meshraq

District: lbb

Governorate: lbb

Pump on date/hour: 19/7/2006 5:13pm

Pump off date/hour: 20/7/2006 5:13pm

End of recovery hour: 21/7/2006 7:13pm

Contractor: Mabkhout Al-Abraki

S.W.L (m): 15.50

Hydrogeologist: Abudul Salam Sallam

D.W.L (m): 110.80

Operator: Al Raboi

Yield (l/sec): 4.1

Duration (min)	Constant Discharge Test			Recovery Test		Water Analysis	Remarks
	Water level (m)	Drawdown (m)	Pumping rate (l/sec)	Water level (m)	Residual (m)	Conductivity (μ S/cm)	
0.0	15.50	0.00		110.80	95.30		
0.5	24.90	9.40		104.65	89.15		
1.0	31.63	16.13		100.67	85.17		
1.5	33.16	17.66		98.10	82.60		
2.0	34.34	18.84		96.69	81.19		
2.5	35.86	20.36		95.37	79.87		
3.0	36.60	21.10		94.18	78.68		
3.5	37.28	21.78		92.86	77.36		
4.0	38.00	22.50		91.85	76.35		
4.5	38.75	23.25		90.75	75.25		
5.0	39.34	23.84		89.78	74.28		
6.0	40.25	24.75		87.93	72.43		
7.0	41.25	25.75		86.22	70.72		
8.0	42.23	26.73		84.62	69.12		
9.0	43.17	27.67		83.12	67.62		
10.0	44.26	28.76		82.00	66.50		
12.0	46.00	30.50		80.10	64.60		
14.0	47.21	31.71		78.50	63.00		
16.0	48.33	32.83		77.16	61.66		
18.0	49.42	33.92		76.49	60.99		
20.0	50.43	34.93		75.60	60.10		
25.0	52.40	36.90		74.50	59.00		
30.0	55.60	40.10		73.55	58.05		
35.0	58.04	42.54		72.95	57.45		
40.0	59.76	44.26		72.15	56.65		
45.0	61.72	46.22		71.40	55.90		
50.0	63.11	47.61		70.80	55.30		
55.0	64.24	48.74		70.20	54.70		
60.0	65.58	50.08		69.78	54.28	902	

Constant Discharge Test

Well Code: 1-04
Site Code: 1-04
S.W.L. (m): 15.50
Yield (L/sec): 4.1

Site Name Al Jahlah & Al Meshraq
D.W.L. (m): 110.80 Drawdown (m): 95.30

