ANNEXE B

RÉSULTATS DES ESSAIS EN LABORATOIRE

GRAIN SIZE DISTRIBUTION

FIGURE

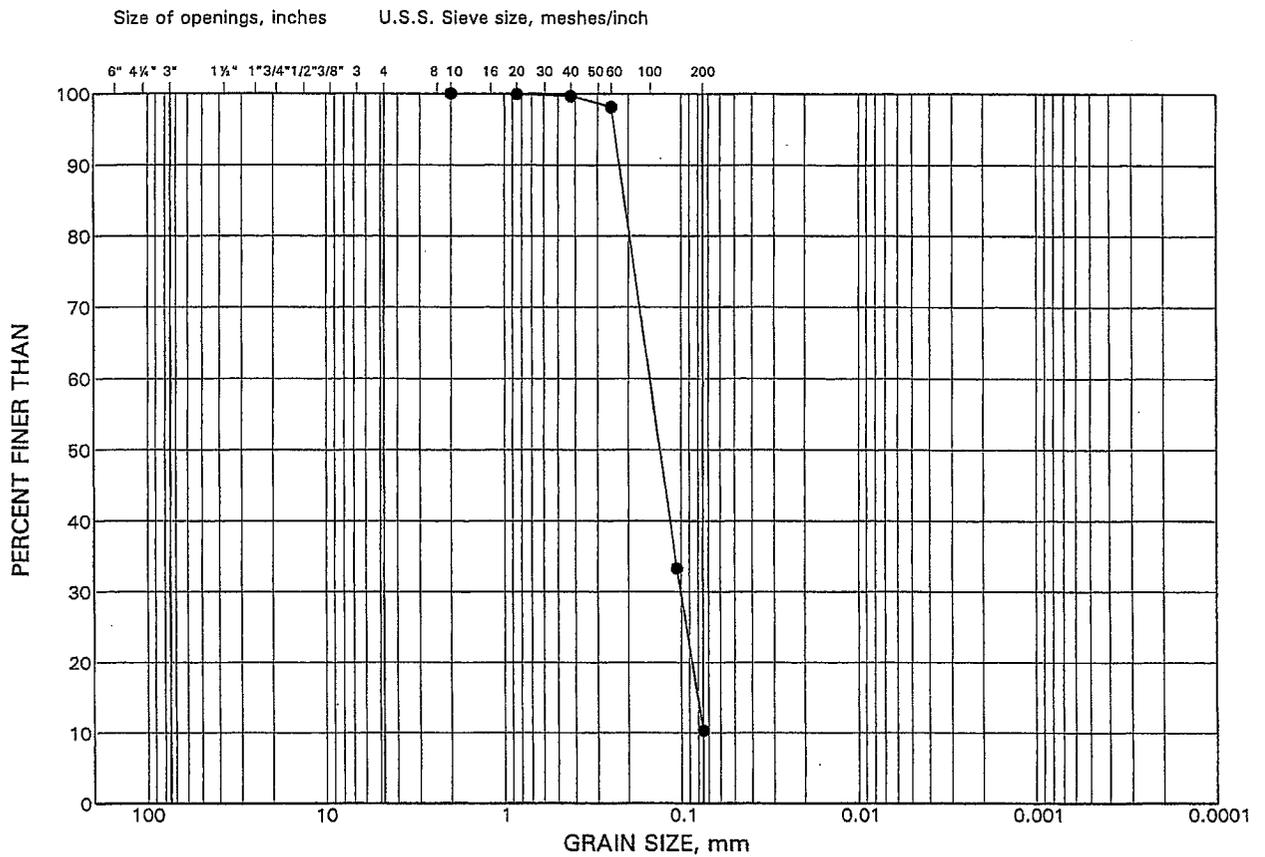Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE		SAND SIZE			FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-11-4	-

Golder Associates

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE		SAND SIZE			FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-12-1	1.2

Golder Associates

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE			SAND SIZE		FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-12-7	11.0

Golder Associates

GRAIN SIZE DISTRIBUTION

	FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

GRAIN SIZE, mm

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE		SAND SIZE			FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-14-2	2.4

Project 011-7112

Golder Associates

GRAIN SIZE DISTRIBUTION

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE			SAND SIZE		FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-14-6	14.6

GRAIN SIZE DISTRIBUTION

Size of openings, inches   U.S.S. Sieve size, meshes/inch

GRAIN SIZE, mm

PERCENT FINER THAN

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE		SAND SIZE			FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-16	6.1

Project 011-7112

Golder Associates

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

PERCENT FINER THAN vs GRAIN SIZE, mm

| COBBLE | COARSE | FINE | COARSE | MEDIUM | FINE | SILT AND CLAY SIZES |
| SIZE | GRAVEL SIZE | | SAND SIZE | | | FINE GRAINED |

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-18	7.9

Golder Associates

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE		SAND SIZE			FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-19-2	1.2

Project 011-7112   **Golder Associates**

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE		SAND SIZE			FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-19-12	7.3

Project 011-7112

Golder Associates

GRAIN SIZE DISTRIBUTION

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE			SAND SIZE		FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-21-1	1.2

Project 011-7112

Golder Associates

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE			SAND SIZE		FINE GRAINED :

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-21	8.5

Project 011-7112   **Golder Associates**

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE		SAND SIZE			FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-24	6.7

GRAIN SIZE DISTRIBUTION

FIGURE

Size of openings, inches   U.S.S. Sieve size, meshes/inch

COBBLE	COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY SIZES
SIZE	GRAVEL SIZE			SAND SIZE		FINE GRAINED

LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH (m)
●	-	S-29-2	7.0

Golder Associates

ANNEXE C

RÉSULTATS DES ESSAIS *IN SITU* ET ESSAI DE POMPAGE

ANNEXE C-1

ESSAIS DE PERMÉABILITÉ

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112
Client Name:	Intersan		Identification:	S-6S
Analysis By:	C.Forget			
Run Date:				

Riser Pipe Diameter:	0,11913656 meters
Intake Diameter:	0,2032 meters
Intake Length:	2,705 meters
Saturated Column Length:	2,705 meters
Water Table Depth:	1,515 meters
Aquifer Thickness:	2,71 meters
Line Fit Starting No.:	1 Min 1 to
Line Fit Ending No.:	20 Max 31
Specify Output Units:	7 1 to 9
Hyd. Cond., K(h):	4,93E-03 cm./sec.
Error of Fit:	0,111
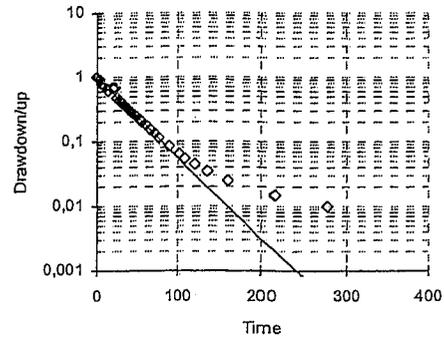
Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,52	1,01		0,005	-0,017
2)	3,00	2,44	0,93		-0,078	-0,103
3)	5,00	2,32	0,81		-0,217	-0,160
4)	9,00	2,23	0,72		-0,335	-0,275
5)	13,00	2,13	0,62		-0,486	-0,391
6)	18,00	2,19	0,68		-0,393	-0,534
7)	21,00	2,20	0,69		-0,374	-0,621
8)	24,00	1,99	0,48		-0,744	-0,707
9)	27,00	1,96	0,44		-0,821	-0,793
10)	29,00	1,92	0,41		-0,904	-0,851
11)	33,00	1,88	0,37		-1,008	-0,966
12)	36,00	1,85	0,34		-1,094	-1,052
13)	38,00	1,83	0,32		-1,155	-1,110
14)	41,00	1,81	0,30		-1,221	-1,196
15)	44,00	1,79	0,28		-1,291	-1,282
16)	47,00	1,77	0,26		-1,366	-1,369
17)	52,00	1,74	0,23		-1,492	-1,513
18)	54,00	1,72	0,21		-1,585	-1,570
19)	59,00	1,70	0,19		-1,687	-1,714
20)	65,00	1,67	0,16		-1,864	-1,887
21)	71,00	1,65	0,14		-2,002	-2,059
22)	76,00	1,63	0,12		-2,163	-2,203
23)	89,00	1,60	0,09		-2,465	-2,577
24)	102,00	1,58	0,07		-2,733	-2,951
25)	109,00	1,57	0,06		-2,900	-3,153
26)	121,00	1,56	0,05		-3,101	-3,498
27)	136,00	1,55	0,04		-3,352	-3,929
28)	160,00	1,54	0,03		-3,689	-4,620
29)	215,00	1,53	0,02		-4,200	-6,202
30)	276,00	1,53	0,01		-4,605	-7,957
31)	645,00	1,52	0,01		-5,298	-18,574

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo	Project No.:	011-7112
Client Name:	Intersan	Identification:	S-22S
Analysis By:	C.Forget		
Run Date:			

Riser Pipe Diameter:	0,1191366	meters
Intake Diameter:	0,2032	meters
Intake Length:	2	meters
Saturated Column Length:	2	meters
Water Table Depth:	1,56	meters
Aquifer Thickness:	2,14	meters
Line Fit Starting No.:	6	Min 1 to
Line Fit Ending No.:	14	Max 14
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	1,46E-03	cm./sec.
Error of Fit:	0,441	
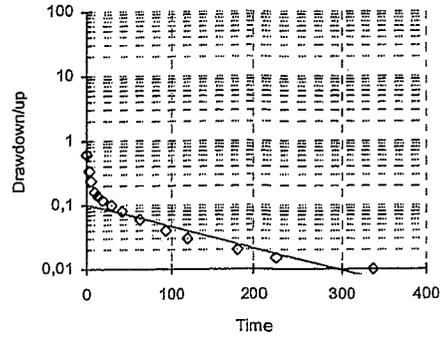
Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,17	0,61		-0,494	-2,275
2)	3,00	1,90	0,34		-1,079	-2,299
3)	5,00	1,80	0,24		-1,427	-2,315
4)	9,00	1,72	0,16		-1,833	-2,347
5)	13,00	1,70	0,14		-1,966	-2,378
6)	18,00	1,68	0,12		-2,120	-2,418
7)	28,00	1,66	0,10		-2,303	-2,497
8)	41,00	1,64	0,08		-2,526	-2,599
9)	62,00	1,62	0,06		-2,813	-2,765
10)	93,00	1,60	0,04		-3,219	-3,010
11)	120,00	1,59	0,03		-3,507	-3,223
12)	180,00	1,58	0,02		-3,912	-3,697
13)	225,00	1,58	0,01		-4,200	-4,052
14)	338,00	1,57	0,01		-4,605	-4,944

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-71 12
Client Name:	Intersan		Identification:	S-23S
Analysis By:	C.Forget			
Run Date:				

Riser Pipe Diameter:	0,11913656	meters
Intake Diameter:	0,2032	meters
Intake Length:	2,914	meters
Saturated Column Length:	2,914	meters
Water Table Depth:	1,866	meters
Aquifer Thickness:	3,9	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	19	Max 23
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	7,07E-03	cm./sec.
Error of Fit:	0,050	
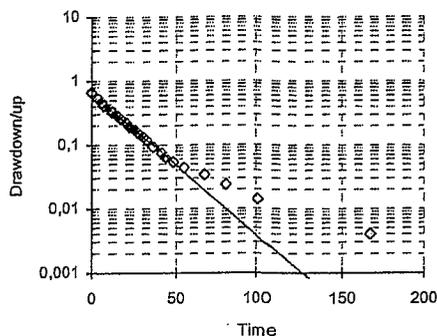
Graph: Drawdown/up vs Time (0 to 200)

Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,53	0,66		-0,409	-0,480
2)	4,00	2,40	0,53		-0,627	-0,684
3)	6,00	2,33	0,46		-0,768	-0,786
4)	7,00	2,28	0,41		-0,882	-0,837
5)	11,00	2,23	0,36		-1,011	-1,040
6)	12,00	2,19	0,32		-1,127	-1,091
7)	15,00	2,16	0,29		-1,241	-1,244
8)	17,00	2,12	0,25		-1,370	-1,346
9)	20,00	2,09	0,22		-1,496	-1,499
10)	22,00	2,06	0,19		-1,640	-1,600
11)	25,00	2,04	0,17		-1,749	-1,753
12)	27,00	2,02	0,15		-1,871	-1,855
13)	30,00	2,00	0,13		-2,010	-2,008
14)	32,00	1,99	0,12		-2,129	-2,110
15)	36,00	1,96	0,09		-2,364	-2,313
16)	41,00	1,94	0,07		-2,604	-2,568
17)	43,00	1,93	0,06		-2,749	-2,670
18)	48,00	1,92	0,05		-2,919	-2,925
19)	55,00	1,91	0,04		-3,124	-3,281
20)	68,00	1,90	0,03		-3,381	-3,943
21)	81,00	1,89	0,02		-3,730	-4,605
22)	101,00	1,88	0,01		-4,269	-5,624
23)	167,00	1,87	0,00		-5,521	-8,985

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112
Client Name:	Intersan		Identification:	S-29S
Analysis By:	C.Forget			
Run Date:				

Riser Pipe Diameter:	0,1191366	meters
Intake Diameter:	0,2032	meters
Intake Length:	2,277	meters
Saturated Column Length:	2,277	meters
Water Table Depth:	1,573	meters
Aquifer Thickness:	2,02	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	30	Max 30
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	1,71E-03	cm./sec.
Error of Fit:	0,059	
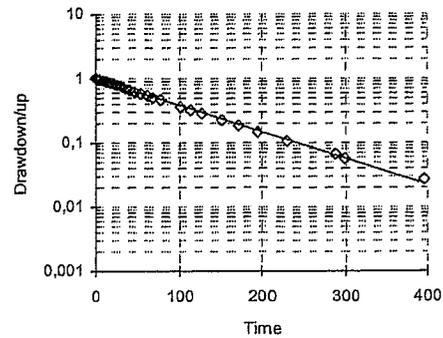
Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,60	1,03		0,027	0,004
2)	4,00	2,58	1,01		0,007	-0,034
3)	5,00	2,55	0,98		-0,023	-0,043
4)	9,00	2,52	0,95		-0,054	-0,082
5)	11,00	2,50	0,93		-0,076	-0,101
6)	13,00	2,49	0,92		-0,087	-0,120
7)	15,00	2,47	0,90		-0,109	-0,139
8)	18,00	2,44	0,87		-0,143	-0,167
9)	21,00	2,42	0,85		-0,166	-0,196
10)	23,00	2,40	0,83		-0,190	-0,215
11)	26,00	2,38	0,81		-0,214	-0,243
12)	30,00	2,36	0,79		-0,240	-0,281
13)	33,00	2,32	0,75		-0,292	-0,310
14)	36,00	2,28	0,71		-0,347	-0,338
15)	41,00	2,24	0,67		-0,405	-0,386
16)	47,00	2,20	0,63		-0,467	-0,443
17)	54,00	2,16	0,59		-0,533	-0,510
18)	62,00	2,12	0,55		-0,603	-0,586
19)	68,00	2,08	0,51		-0,679	-0,643
20)	77,00	2,04	0,47		-0,761	-0,729
21)	101,00	1,94	0,37		-1,002	-0,957
22)	113,00	1,90	0,33		-1,118	-1,071
23)	127,00	1,86	0,29		-1,248	-1,204
24)	151,00	1,80	0,23		-1,483	-1,433
25)	171,00	1,76	0,19		-1,677	-1,623
26)	195,00	1,72	0,15		-1,917	-1,851
27)	229,00	1,68	0,11		-2,235	-2,175
28)	288,00	1,64	0,07		-2,703	-2,736
29)	299,00	1,63	0,06		-2,865	-2,841
30)	396,00	1,60	0,03		-3,612	-3,764

Bouwer & Rice Method for Calculating Hydraulic Conductivity

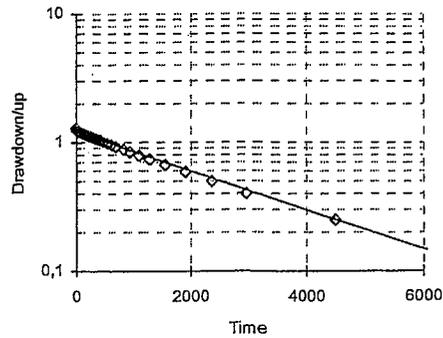Project Name: Étude hydrogéo   Project No.: 011-7112
Client Name: Intersan   Identification: S-9A
Analysis By: C.Forget
Run Date:

Riser Pipe Diameter:	0,0508	meters
Intake Diameter:	0,2032	meters
Intake Length:	1,78	meters
Saturated Column Length:	3,94	meters
Water Table Depth:	1,41	meters
Aquifer Thickness:	4,27	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	43	Max 43
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	1,45E-05	cm./sec.
Error of Fit:	0,039	

Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,70	1,29		0,255	0,192
2)	10,00	2,65	1,24		0,215	0,189
3)	18,00	2,64	1,23		0,207	0,186
4)	38,00	2,63	1,22		0,199	0,179
5)	47,00	2,63	1,22		0,195	0,176
6)	55,00	2,62	1,21		0,191	0,173
7)	77,00	2,61	1,20		0,182	0,165
8)	84,00	2,61	1,20		0,178	0,163
9)	95,00	2,60	1,19		0,174	0,159
10)	104,00	2,60	1,19		0,170	0,156
11)	112,00	2,59	1,18		0,166	0,153
12)	123,00	2,59	1,18		0,161	0,149
13)	132,00	2,58	1,17		0,157	0,146
14)	143,00	2,58	1,17		0,153	0,142
15)	155,00	2,57	1,16		0,148	0,138
16)	163,00	2,57	1,16		0,144	0,135
17)	172,00	2,56	1,15		0,140	0,132
18)	182,00	2,56	1,15		0,135	0,129
19)	194,00	2,55	1,14		0,131	0,125
20)	204,00	2,55	1,14		0,127	0,121
21)	215,00	2,54	1,13		0,122	0,117
22)	239,00	2,53	1,12		0,113	0,109
23)	259,00	2,52	1,11		0,104	0,102
24)	281,00	2,51	1,10		0,095	0,094
25)	325,00	2,49	1,08		0,077	0,079
26)	347,00	2,48	1,07		0,068	0,071
27)	372,00	2,47	1,06		0,058	0,062
28)	394,00	2,46	1,05		0,049	0,055
29)	422,00	2,45	1,04		0,039	0,045
30)	465,00	2,43	1,02		0,020	0,030
31)	538,00	2,40	0,99		-0,010	0,004
32)	616,00	2,37	0,96		-0,041	-0,023
33)	699,00	2,34	0,93		-0,073	-0,052
34)	841,00	2,29	0,88		-0,128	-0,102
35)	960,00	2,25	0,84		-0,174	-0,143

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Étude hydrogéo   Project No.: 011-7112
Client Name: Intersan   Identification: S-9A
Analysis By: C.Forget
Run Date:

Riser Pipe Diameter:	0,0508	meters
Intake Diameter:	0,2032	meters
Intake Length:	1,78	meters
Saturated Column Length:	3,94	meters
Water Table Depth:	1,41	meters
Aquifer Thickness:	4,27	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	43	Max 43
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	1,45E-05	cm./sec.
Error of Fit:	0,039	
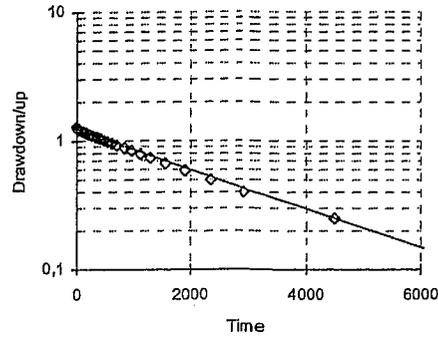
Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
36)	1119,00	2,20	0,79		-0,236	-0,199
37)	1297,00	2,15	0,74		-0,301	-0,261
38)	1560,00	2,08	0,67		-0,400	-0,353
39)	1903,00	2,00	0,59		-0,528	-0,473
40)	2367,00	1,91	0,50		-0,693	-0,635
41)	2999,00	1,81	0,40		-0,916	-0,856
42)	4500,00	1,66	0,25		-1,386	-1,381
43)	6060,00	1,57	0,16		-1,814	-1,927

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112
Client Name:	Intersan		Identification:	S-12A
Analysis By:	C.Forget			
Run Date:				

Riser Pipe Diameter:	0,0508	meters
Intake Diameter:	0,2032	meters
Intake Length:	1,15	meters
Saturated Column Length:	5,448	meters
Water Table Depth:	1,232	meters
Aquifer Thickness:	7,31	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	31	Max 31
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	3,35E-05	cm./sec.
Error of Fit:	0,002	
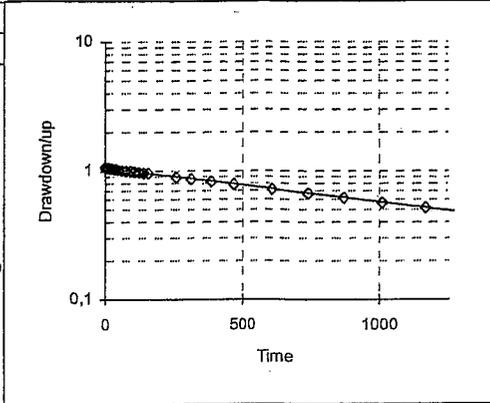
Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,30	1,07	0,066	0,052
2)	7,00	2,29	1,06	0,056	0,048
3)	12,00	2,30	1,06	0,061	0,045
4)	17,00	2,28	1,05	0,047	0,042
5)	24,00	2,29	1,05	0,052	0,038
6)	30,00	2,27	1,04	0,037	0,034
7)	37,00	2,28	1,04	0,042	0,030
8)	44,00	2,26	1,03	0,028	0,026
9)	59,00	2,25	1,02	0,018	0,017
10)	73,00	2,24	1,01	0,008	0,008
11)	89,00	2,23	1,00	-0,002	-0,002
12)	103,00	2,22	0,99	-0,012	-0,010
13)	119,00	2,21	0,98	-0,022	-0,020
14)	135,00	2,20	0,97	-0,033	-0,029
15)	151,00	2,19	0,96	-0,043	-0,039
16)	252,00	2,13	0,90	-0,108	-0,100
17)	309,00	2,10	0,87	-0,142	-0,134
18)	384,00	2,06	0,83	-0,189	-0,180
19)	466,00	2,02	0,79	-0,238	-0,229
20)	617,00	1,95	0,72	-0,331	-0,320
21)	741,00	1,90	0,67	-0,403	-0,395
22)	867,00	1,85	0,62	-0,481	-0,471
23)	1010,00	1,80	0,57	-0,566	-0,558
24)	1165,00	1,75	0,52	-0,658	-0,651
25)	1337,00	1,70	0,47	-0,759	-0,755
26)	1526,00	1,65	0,42	-0,872	-0,869
27)	1739,00	1,60	0,37	-1,000	-0,998
28)	1983,00	1,55	0,32	-1,146	-1,145
29)	2268,00	1,50	0,27	-1,317	-1,317
30)	2622,00	1,45	0,22	-1,523	-1,531
31)	3063,00	1,40	0,17	-1,784	-1,797

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Étude hydrogéo
Client Name: Intersan
Analysis By: C.Forget
Run Date:

Project No.: 011-7112
Identification: S-23A

Riser Pipe Diameter:	0,11913656	meters
Intake Diameter:	0,2032	meters
Intake Length:	4,56	meters
Saturated Column Length:	4,56	meters
Water Table Depth:	7,15	meters
Aquifer Thickness:	7,5	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	11	Max 11
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	3,62E-07	cm./sec.
Error of Fit:	0,017	
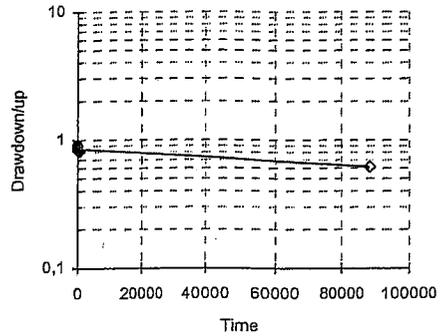
Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	8,07	0,92		-0,083	-0,161
2)	5,00	8,05	0,90		-0,105	-0,161
3)	8,00	8,04	0,89		-0,117	-0,161
4)	11,00	8,00	0,85		-0,163	-0,161
5)	32,00	7,99	0,84		-0,174	-0,161
6)	50,00	7,99	0,84		-0,180	-0,161
7)	76,00	7,98	0,83		-0,186	-0,161
8)	134,00	7,98	0,82		-0,192	-0,161
9)	234,00	7,97	0,82		-0,198	-0,161
10)	720,00	7,96	0,81		-0,211	-0,163
11)	88440,00	7,77	0,62		-0,478	-0,479

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Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Étude hydrogéo
Client Name: Intersan
Analysis By: C.Forget
Run Date:

Project No.: 011-7112
Identification: S-25A

Riser Pipe Diameter:	0,0508	meters
Intake Diameter:	0,2032	meters
Intake Length:	1,8	meters
Saturated Column Length:	3,91	meters
Water Table Depth:	2,96	meters
Aquifer Thickness:	7	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	14	Max 14
Specify Output Units:	7	1 to 9
Hyd. Cond., K(h):	1,38E-07	cm./sec.
Error of Fit:	0,004	
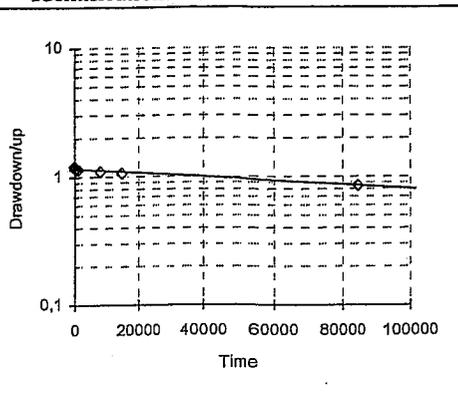
Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	4,17	1,21		0,191	0,152
2)	15,00	4,15	1,19		0,170	0,152
3)	22,00	4,14	1,18		0,161	0,152
4)	30,00	4,14	1,18		0,161	0,152
5)	45,00	4,13	1,17		0,157	0,152
6)	142,00	4,13	1,17		0,153	0,151
7)	337,00	4,12	1,16		0,148	0,151
8)	515,00	4,12	1,16		0,144	0,150
9)	908,00	4,11	1,15		0,140	0,149
10)	1237,00	4,11	1,15		0,135	0,147
11)	8077,00	4,06	1,10		0,095	0,123
12)	14797,00	4,03	1,07		0,068	0,098
13)	84637,00	3,81	0,85		-0,159	-0,155
14)	########	3,76	0,80		-0,227	-0,237

Hvorslev's Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112	
Client Name:	Intersan		Run Date:		
Analysis By:	C.Forget		Identification:	S-12T	

Test Type:	6	1 to 7	
Riser Pipe Diameter:	0,0508	meters	
Intake Diam.:	0,096	meters	
Intake Length:	2,59	meters	
Water Table Depth:	9,015	meters	
Line Fit Starting No.:	1	Min 1 to	
Line Fit Ending No.:	7	Max 15	
Entrapped Air Correct.:	N	Y or N	
Specify Output Units:	4	1 to 9	
Hyd Cond, K(h):	2,52E-04	m./sec.	
Basic Time Lag:	2,32	sec.	
Error of Fit:	0,5455		

Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	9,40	0,38	0,0000	0,4459
2)	2,00	9,25	0,23	-0,5021	-0,8025
3)	3,00	9,13	0,12	-1,1952	-1,4267
4)	4,00	9,07	0,05	-1,9328	-2,0509
5)	5,00	9,05	0,03	-2,5390	-2,6751
6)	6,00	9,03	0,01	-3,2321	-3,2993
7)	7,00	9,02	0,00	-4,3307	-3,9235
8)	8,00	9,02	0,00	#NOMBRE!	-4,5477
9)	9,00	9,02	0,00	#NOMBRE!	-5,1719
10)	10,00	9,01	0,01	-3,6376	-5,7961
11)	11,00	9,01	0,01	-3,6376	-6,4203
12)	12,00	9,01	0,01	-3,6376	-7,0445
13)	13,00	9,01	0,01	-3,6376	-7,6687
14)	14,00	9,01	0,01	-3,6376	-8,2928
15)	15,00	9,01	0,01	-3,6376	-8,9170

Hvorslev's Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112
Client Name:	Intersan		Run Date:	
Analysis By:	C.Forget		Identification:	S-7R

Test Type:	6	1 to 7
Riser Pipe Diameter:	0,0508	meters
Intake Diam.:	0,096	meters
Intake Length:	1,5	meters
Water Table Depth:	16,385	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	7	Max 7
Entrapped Air Correct.:	N	Y or N
Specify Output Units:	4	1 to 9
Hyd Cond, K(h):	3,96E-09	m./sec.
Basic Time Lag:	224357,60	sec.
Error of Fit:	0,0001	

Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	18,11	1,73	0,0000	-0,0044
2)	60,00	18,11	1,73	0,0000	-0,0046
3)	240,00	18,10	1,72	-0,0058	-0,0054
4)	390,00	18,10	1,71	-0,0087	-0,0061
5)	840,00	18,09	1,70	-0,0146	-0,0081
6)	4860,00	18,07	1,68	-0,0264	-0,0259
7)	8580,00	18,04	1,66	-0,0414	-0,0424

Hvorslev's Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112
Client Name:	Intersan		Run Date:	
Analysis By:	C.Forget		Identification:	S-21R

Test Type:	6	1 to 7	
Riser Pipe Diameter:	0,0508	meters	
Intake Diam.:	0,096	meters	
Intake Length:	1,61	meters	
Water Table Depth:	7,25	meters	
Line Fit Starting No.:	1	Min 1 to	
Line Fit Ending No.:	12	Max 34	
Entrapped Air Correct.:	N	Y or N	
Specify Output Units:	4	1 to 9	
Hyd Cond, K(h):	1,64E-04	m./sec.	
Basic Time Lag:	5,13	sec.	
Error of Fit:	0,0611		

Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	7,69	0,44	0,0000	0,0973
2)	1,00	7,62	0,37	-0,1733	-0,1164
3)	2,00	7,57	0,32	-0,3342	-0,3301
4)	3,00	7,51	0,26	-0,5261	-0,5439
5)	4,00	7,47	0,22	-0,7161	-0,7576
6)	5,00	7,43	0,18	-0,9220	-0,9713
7)	6,00	7,40	0,15	-1,0761	-1,1850
8)	7,00	7,37	0,12	-1,3418	-1,3988
9)	8,00	7,35	0,09	-1,5329	-1,6125
10)	9,00	7,32	0,07	-1,8383	-1,8262
11)	10,00	7,31	0,05	-2,0794	-2,0400
12)	11,00	7,29	0,04	-2,3979	-2,2537
13)	12,00	7,29	0,04	-2,5314	-2,4674
14)	13,00	7,28	0,03	-2,8679	-2,6811
15)	14,00	7,27	0,01	-3,3787	-2,8949
16)	15,00	7,26	0,00	-4,4773	-3,1086
17)	16,00	7,25	0,00	#NOMBRE!	-3,3223
18)	17,00	7,25	0,00	#NOMBRE!	-3,5361
19)	18,00	7,25	0,00	-4,4773	-3,7498
20)	19,00	7,25	0,00	-4,4773	-3,9635
21)	20,00	7,24	0,01	-3,3787	-4,1772
22)	21,00	7,24	0,01	-3,3787	-4,3910
23)	22,00	7,24	0,01	-3,3787	-4,6047
24)	23,00	7,24	0,01	-3,3787	-4,8184
25)	24,00	7,24	0,01	-3,3787	-5,0322
26)	25,00	7,23	0,02	-3,0910	-5,2459
27)	26,00	7,24	0,01	-3,3787	-5,4596
28)	27,00	7,24	0,01	-3,3787	-5,6733
29)	28,00	7,24	0,01	-3,3787	-5,8871
30)	29,00	7,23	0,03	-2,8679	-6,1008
31)	30,00	7,23	0,03	-2,8679	-6,3145
32)	31,00	7,23	0,02	-3,0910	-6,5282
33)	32,00	7,23	0,02	-3,0910	-6,7420
34)	33,00	7,23	0,03	-2,8679	-6,9557

Hvorslev's Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112
Client Name:	Intersan		Run Date:	
Analysis By:	C.Forget		Identification:	S-22R

Test Type:	6	1 to 7	
Riser Pipe Diameter:	0,0508	meters	
Intake Diam.:	0,1	meters	
Intake Length:	1,57	meters	
Water Table Depth:	7,435	meters	
Line Fit Starting No.:	1	Min 1 to	
Line Fit Ending No.:	6	Max 19	
Entrapped Air Correct.:	N	Y or N	
Specify Output Units:	4	1 to 9	
Hyd Cond, K(h):	2,44E-04	m./sec.	
Basic Time Lag:	3,48	sec.	
Error of Fit:	0,0010		

Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	7,86	0,42	0,0000	0,0117
2)	1,00	7,76	0,32	-0,2719	-0,2788
3)	2,00	7,68	0,24	-0,5596	-0,5692
4)	3,00	7,62	0,18	-0,8473	-0,8597
5)	4,00	7,57	0,13	-1,1727	-1,1501
6)	5,00	7,54	0,10	-1,4351	-1,4405
7)	6,00	7,51	0,07	-1,7918	-1,7310
8)	7,00	7,57	0,13	-1,1727	-2,0214
9)	8,00	7,54	0,10	-1,4351	-2,3119
10)	9,00	7,50	0,06	-1,9459	-2,6023
11)	10,00	7,50	0,06	-1,9459	-2,8928
12)	11,00	7,53	0,09	-1,5404	-3,1832
13)	12,00	7,54	0,10	-1,4351	-3,4736
14)	13,00	7,54	0,10	-1,4351	-3,7641
15)	14,00	7,55	0,11	-1,3398	-4,0545
16)	15,00	7,44	0,00	#NOMBRE!	-4,3450
17)	16,00	7,44	0,00	#NOMBRE!	-4,6354
18)	17,00	7,44	0,00	#NOMBRE!	-4,9258
19)	18,00	7,44	0,00	#NOMBRE!	-5,2163

Hvorslev's Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo	
Client Name:	Intersan	
Analysis By:	C.Forget	

Project No.:	011-7112	
Run Date:		
Identification:	S-24R	

Test Type:	6	1 to 7
Riser Pipe Diameter:	0,0508	meters
Intake Diam.:	0,096	meters
Intake Length:	0,98	meters
Water Table Depth:	12,44	meters
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	9	Max 20
Entrapped Air Correct.:	N	Y or N
Specify Output Units:	4	1 to 9
Hyd Cond, K(h):	3,68E-04	m./sec.
Basic Time Lag:	3,32	sec.
Error of Fit:	0,1713	

Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	1,00	12,55	0,11	0,0000	0,0485
2)	2,00	12,52	0,08	-0,3185	-0,2673
3)	3,00	12,50	0,06	-0,6061	-0,5830
4)	4,00	12,49	0,05	-0,7885	-0,8987
5)	5,00	12,48	0,04	-1,0116	-1,2144
6)	6,00	12,46	0,02	-1,7047	-1,5302
7)	7,00	12,46	0,02	-1,7047	-1,8459
8)	8,00	12,45	0,01	-2,3979	-2,1616
9)	9,00	12,45	0,01	-2,3979	-2,4773
10)	10,00	12,44	0,00	#NOMBRE!	-2,7931
11)	11,00	12,44	0,00	#NOMBRE!	-3,1088
12)	12,00	12,44	0,00	#NOMBRE!	-3,4245
13)	13,00	12,44	0,00	#NOMBRE!	-3,7402
14)	14,00	12,44	0,00	#NOMBRE!	-4,0560
15)	15,00	12,44	0,00	#NOMBRE!	-4,3717
16)	16,00	12,44	0,00	#NOMBRE!	-4,6874
17)	17,00	12,44	0,00	#NOMBRE!	-5,0031
18)	18,00	12,44	0,00	#NOMBRE!	-5,3188
19)	19,00	12,44	0,00	#NOMBRE!	-5,6346
20)	20,00	12,44	0,00	#NOMBRE!	-5,9503

Hvorslev's Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo			Project No.:	011-7112
Client Name:	Intersan			Run Date:	
Analysis By:	C.Forget			Identification:	S-28R

Test Type:	6	1 to 7	
Riser Pipe Diameter:	0,0508	meters	
Intake Diam.:	0,096	meters	
Intake Length:	1,33	meters	
Water Table Depth:	3,72	meters	
Line Fit Starting No.:	1	Min 1 to	
Line Fit Ending No.:	40	Max 100	
Entrapped Air Correct.:	N	Y or N	
Specify Output Units:	4	1 to 9	
Hyd Cond, K(h):	7,78E-05	m./sec.	
Basic Time Lag:	12,52	sec.	
Error of Fit:	0,1971		

Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	4,29	0,57	0,0000	-0,1107
2)	1,00	4,25	0,53	-0,0734	-0,1817
3)	2,00	4,20	0,48	-0,1735	-0,2528
4)	3,00	4,16	0,44	-0,2615	-0,3238
5)	4,00	4,12	0,40	-0,3579	-0,3949
6)	5,00	4,09	0,37	-0,4369	-0,4659
7)	6,00	4,06	0,34	-0,5079	-0,5370
8)	7,00	4,03	0,31	-0,6003	-0,6080
9)	8,00	4,01	0,29	-0,6843	-0,6791
10)	9,00	3,99	0,27	-0,7384	-0,7501
11)	10,00	3,97	0,25	-0,8356	-0,8212
12)	11,00	3,94	0,22	-0,9432	-0,8922
13)	12,00	3,94	0,22	-0,9662	-0,9633
14)	13,00	3,92	0,20	-1,0638	-1,0343
15)	14,00	3,90	0,18	-1,1720	-1,1054
16)	15,00	3,88	0,16	-1,2617	-1,1764
17)	16,00	3,88	0,16	-1,2934	-1,2475
18)	17,00	3,87	0,15	-1,3601	-1,3185
19)	18,00	3,85	0,13	-1,4693	-1,3896
20)	19,00	3,84	0,12	-1,5493	-1,4606
21)	20,00	3,83	0,11	-1,6363	-1,5317
22)	21,00	3,83	0,11	-1,6829	-1,6027
23)	22,00	3,83	0,11	-1,6829	-1,6738
24)	23,00	3,82	0,09	-1,7829	-1,7448
25)	24,00	3,81	0,09	-1,8942	-1,8159
26)	25,00	3,81	0,09	-1,8942	-1,8870
27)	26,00	3,80	0,07	-2,0193	-1,9580
28)	27,00	3,80	0,07	-2,0193	-2,0291
29)	28,00	3,79	0,06	-2,1624	-2,1001
30)	29,00	3,79	0,06	-2,1624	-2,1712
31)	30,00	3,79	0,06	-2,1624	-2,2422
32)	31,00	3,77	0,05	-2,4248	-2,3133
33)	32,00	3,77	0,05	-2,4248	-2,3843
34)	33,00	3,77	0,05	-2,4248	-2,4554
35)	34,00	3,77	0,05	-2,4248	-2,5264

Hvorslev's Method for Calculating Hydraulic Conductivity

Project Name:	Étude hydrogéo		Project No.:	011-7112
Client Name:	Intersan		Run Date:	
Analysis By:	C.Forget		Identification:	S-28R

Test Type:	6	1 to 7	
Riser Pipe Diameter:	0,0508	meters	
Intake Diam.:	0,096	meters	
Intake Length:	1,33	meters	
Water Table Depth:	3,72	meters	
Line Fit Starting No.:	1	Min 1 to	
Line Fit Ending No.:	40	Max 100	
Entrapped Air Correct.:	N	Y or N	
Specify Output Units:	4	1 to 9	
Hyd Cond, K(h):	7,78E-05	m./sec.	
Basic Time Lag:	12,52	sec.	
Error of Fit:	0,1971		

Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
36)	35,00	3,77	0,05	-2,4248	-2,5975
37)	36,00	3,77	0,04	-2,5302	-2,6685
38)	37,00	3,76	0,03	-2,7815	-2,7396
39)	38,00	3,76	0,03	-2,7815	-2,8106
40)	39,00	3,76	0,03	-2,7815	-2,8817
41)	40,00	3,76	0,03	-2,7815	-2,9527
42)	41,00	3,76	0,03	-2,7815	-3,0238
43)	42,00	3,76	0,03	-2,7815	-3,0948
44)	43,00	3,75	0,03	-2,9356	-3,1659
45)	44,00	3,75	0,02	-3,1179	-3,2369
46)	45,00	3,75	0,03	-2,9356	-3,3080
47)	46,00	3,75	0,03	-2,9356	-3,3790
48)	47,00	3,74	0,02	-3,3411	-3,4501
49)	48,00	3,74	0,02	-3,3411	-3,5211
50)	49,00	3,74	0,02	-3,3411	-3,5922
51)	50,00	3,74	0,02	-3,3411	-3,6632
52)	51,00	3,74	0,02	-3,3411	-3,7343
53)	52,00	3,74	0,02	-3,3411	-3,8053
54)	53,00	3,74	0,02	-3,3411	-3,8764
55)	54,00	3,74	0,02	-3,3411	-3,9474
56)	55,00	3,74	0,02	-3,3411	-4,0185
57)	56,00	3,74	0,02	-3,3411	-4,0895
58)	57,00	3,74	0,02	-3,3411	-4,1606
59)	58,00	3,74	0,02	-3,3411	-4,2317
60)	59,00	3,74	0,02	-3,3411	-4,3027
61)	60,00	3,74	0,02	-3,3411	-4,3738
62)	61,00	3,74	0,02	-3,3411	-4,4448
63)	62,00	3,74	0,01	-3,6288	-4,5159
64)	63,00	3,73	0,01	-4,0342	-4,5869
65)	64,00	3,73	0,00	-4,7274	-4,6580
66)	65,00	3,74	0,02	-3,3411	-4,7290
67)	66,00	3,73	0,00	-4,7274	-4,8001
68)	67,00	3,73	0,00	-4,7274	-4,8711
69)	68,00	3,73	0,00	-4,7274	-4,9422
70)	69,00	3,73	0,01	-4,0342	-5,0132

ANNEXE C-2

ESSAI DE POMPAGE

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	
Discharge 43.02 l/s	

o PO 00-1

Transmissivity [m²/s]: 1.08×10^{-2}

Storativity: 1.42×10^{-2}

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	
Discharge 43.02 l/s	

o PO 00-1
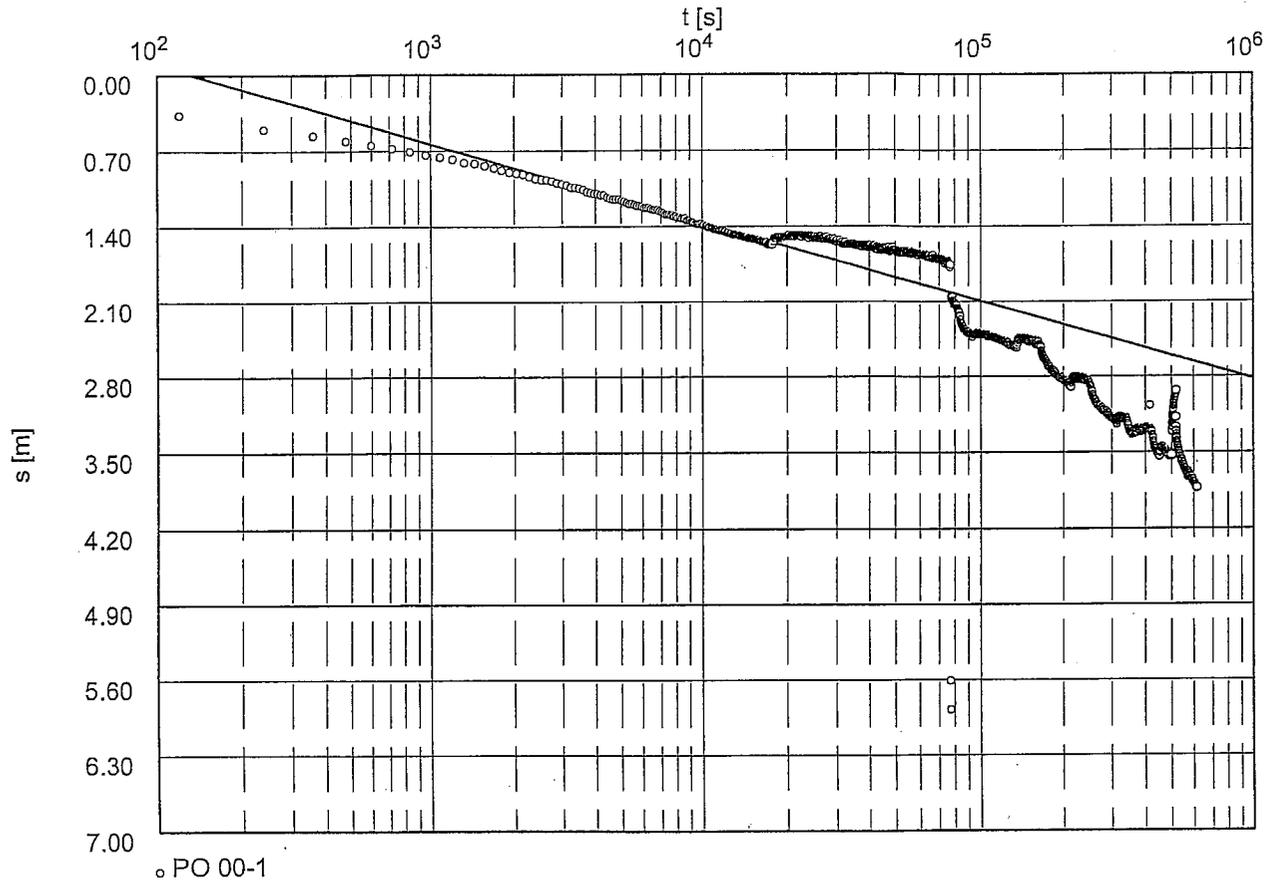
Transmissivity [m²/s]: 1.08×10^{-2}

Storativity: 1.36×10^{-2}

Waterloo Hydrogeologic
180 Columbia St. W.
Waterloo,Ontario,Canada
ph.(519)746-1798

Pumping test analysis
Theis analysis method
Confined aquifer

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	PO 00-1
Discharge 43.02 l/s	Distance from the pumping well 15.0000 m

Static water level: 4.9300 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
2	120.0000	5.3000	0.3700	
3	240.0000	5.4300	0.5000	
4	360.0000	5.4900	0.5600	
5	480.0000	5.5400	0.6100	
6	600.0000	5.5800	0.6500	
7	720.0000	5.6100	0.6800	
8	840.0000	5.6400	0.7100	
9	960.0000	5.6700	0.7400	
10	1080.0000	5.6900	0.7600	
11	1200.0000	5.7100	0.7800	
12	1320.0000	5.7400	0.8100	
13	1440.0000	5.7500	0.8200	
14	1560.0000	5.7700	0.8400	
15	1680.0000	5.7900	0.8600	
16	1800.0000	5.8100	0.8800	
17	1920.0000	5.8300	0.9000	
18	2040.0000	5.8400	0.9100	
19	2160.0000	5.8500	0.9200	
20	2280.0000	5.8700	0.9400	
21	2400.0000	5.8900	0.9600	
22	2520.0000	5.9000	0.9700	
23	2640.0000	5.9000	0.9700	
24	2760.0000	5.9100	0.9800	
25	2880.0000	5.9300	1.0000	
26	3000.0000	5.9400	1.0100	
27	3120.0000	5.9500	1.0200	
28	3240.0000	5.9700	1.0400	
29	3360.0000	5.9700	1.0400	
30	3480.0000	5.9800	1.0500	
31	3600.0000	5.9900	1.0600	
32	3720.0000	6.0100	1.0800	
33	3840.0000	6.0200	1.0900	
34	3960.0000	6.0300	1.1000	
35	4080.0000	6.0300	1.1000	
36	4200.0000	6.0400	1.1100	
37	4320.0000	6.0400	1.1100	
38	4440.0000	6.0600	1.1300	
39	4560.0000	6.0700	1.1400	
40	4680.0000	6.0800	1.1500	
41	4800.0000	6.0800	1.1500	
42	4920.0000	6.0800	1.1500	
43	5040.0000	6.0900	1.1600	
44	5160.0000	6.1000	1.1700	
45	5280.0000	6.1100	1.1800	
46	5400.0000	6.1200	1.1900	
47	5520.0000	6.1200	1.1900	
48	5640.0000	6.1300	1.2000	
49	5760.0000	6.1400	1.2100	
50	5880.0000	6.1400	1.2100	

Waterloo Hydrogeologic	Pumping test analysis
180 Columbia St. W.	Theis analysis method
Waterloo,Ontario,Canada	Confined aquifer
ph.(519)746-1798	

Project: 001-7077

Evaluated by: M. Chiasson

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	PO 00-1
Discharge 43.02 l/s	Distance from the pumping well 15.0000 m

Static water level: 4.9300 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
51	6000.0000	6.1500	1.2200	
52	6120.0000	6.1600	1.2300	
53	6240.0000	6.1600	1.2300	
54	6360.0000	6.1600	1.2300	
55	6480.0000	6.1700	1.2400	
56	6600.0000	6.1800	1.2500	
57	6720.0000	6.1800	1.2500	
58	6840.0000	6.1800	1.2500	
59	6960.0000	6.1900	1.2600	
60	7080.0000	6.2000	1.2700	
61	7200.0000	6.2100	1.2800	
62	7320.0000	6.2200	1.2900	
63	7440.0000	6.2200	1.2900	
64	7560.0000	6.2200	1.2900	
65	7680.0000	6.2300	1.3000	
66	7800.0000	6.2300	1.3000	
67	7920.0000	6.2400	1.3100	
68	8040.0000	6.2400	1.3100	
69	8160.0000	6.2500	1.3200	
70	8280.0000	6.2500	1.3200	
71	8400.0000	6.2600	1.3300	
72	8520.0000	6.2600	1.3300	
73	8640.0000	6.2600	1.3300	
74	8760.0000	6.2800	1.3500	
75	8880.0000	6.2800	1.3500	
76	9000.0000	6.2800	1.3500	
77	9120.0000	6.2900	1.3600	
78	9240.0000	6.2900	1.3600	
79	9360.0000	6.3000	1.3700	
80	9480.0000	6.3100	1.3800	
81	9600.0000	6.3100	1.3800	
82	9720.0000	6.3100	1.3800	
83	9840.0000	6.3100	1.3800	
84	9960.0000	6.3100	1.3800	
85	10080.0000	6.3200	1.3900	
86	10200.0000	6.3200	1.3900	
87	10320.0000	6.3300	1.4000	
88	10440.0000	6.3300	1.4000	
89	10560.0000	6.3400	1.4100	
90	10680.0000	6.3400	1.4100	
91	10800.0000	6.3400	1.4100	
92	10920.0000	6.3500	1.4200	
93	11040.0000	6.3600	1.4300	
94	11160.0000	6.3600	1.4300	
95	11280.0000	6.3600	1.4300	
96	11400.0000	6.3600	1.4300	
97	11520.0000	6.3700	1.4400	
98	11640.0000	6.3700	1.4400	
99	11760.0000	6.3700	1.4400	
100	11880.0000	6.3700	1.4400	

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Theis analysis method Confined aquifer	
		Date: 21.01.2002 Page 4
		Project: 001-7077
		Evaluated by: M. Chiasson

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	PO 00-1
Discharge 43.02 l/s	Distance from the pumping well 15.0000 m

Static water level: 4.9300 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
101	12000.0000	6.3800	1.4500	
102	12120.0000	6.3800	1.4500	
103	12240.0000	6.3900	1.4600	
104	12360.0000	6.3900	1.4600	
105	12480.0000	6.3900	1.4600	
106	12600.0000	6.4000	1.4700	
107	12720.0000	6.4000	1.4700	
108	12840.0000	6.4100	1.4800	
109	12960.0000	6.4100	1.4800	
110	13080.0000	6.4100	1.4800	
111	13200.0000	6.4100	1.4800	
112	13320.0000	6.4100	1.4800	
113	13440.0000	6.4100	1.4800	
114	13560.0000	6.4200	1.4900	
115	13680.0000	6.4200	1.4900	
116	13800.0000	6.4200	1.4900	
117	13920.0000	6.4300	1.5000	
118	14040.0000	6.4300	1.5000	
119	14160.0000	6.4300	1.5000	
120	14280.0000	6.4300	1.5000	
121	14400.0000	6.4300	1.5000	
122	14520.0000	6.4400	1.5100	
123	14640.0000	6.4400	1.5100	
124	14760.0000	6.4400	1.5100	
125	14880.0000	6.4400	1.5100	
126	15000.0000	6.4400	1.5100	
127	15120.0000	6.4500	1.5200	
128	15240.0000	6.4500	1.5200	
129	15360.0000	6.4500	1.5200	
130	15480.0000	6.4500	1.5200	
131	15600.0000	6.4600	1.5300	
132	15720.0000	6.4600	1.5300	
133	15840.0000	6.4600	1.5300	
134	15960.0000	6.4600	1.5300	
135	16080.0000	6.4700	1.5400	
136	16200.0000	6.4700	1.5400	
137	16320.0000	6.4700	1.5400	
138	16440.0000	6.4800	1.5500	
139	16560.0000	6.4800	1.5500	
140	16680.0000	6.4800	1.5500	
141	16800.0000	6.4900	1.5600	
142	16920.0000	6.4800	1.5500	
143	17040.0000	6.5000	1.5700	
144	17160.0000	6.4900	1.5600	
145	17280.0000	6.5000	1.5700	
146	17400.0000	6.5000	1.5700	
147	17520.0000	6.5000	1.5700	
148	17640.0000	6.5000	1.5700	
149	17760.0000	6.5000	1.5700	
150	17880.0000	6.4700	1.5400	

Pumping Test No. 1		Test conducted on: 00-11-01
P-2		
Discharge 43.02 l/s		

Transmissivity [m²/s]: 1.04×10^{-2}

Storativity: 4.93×10^{-4}

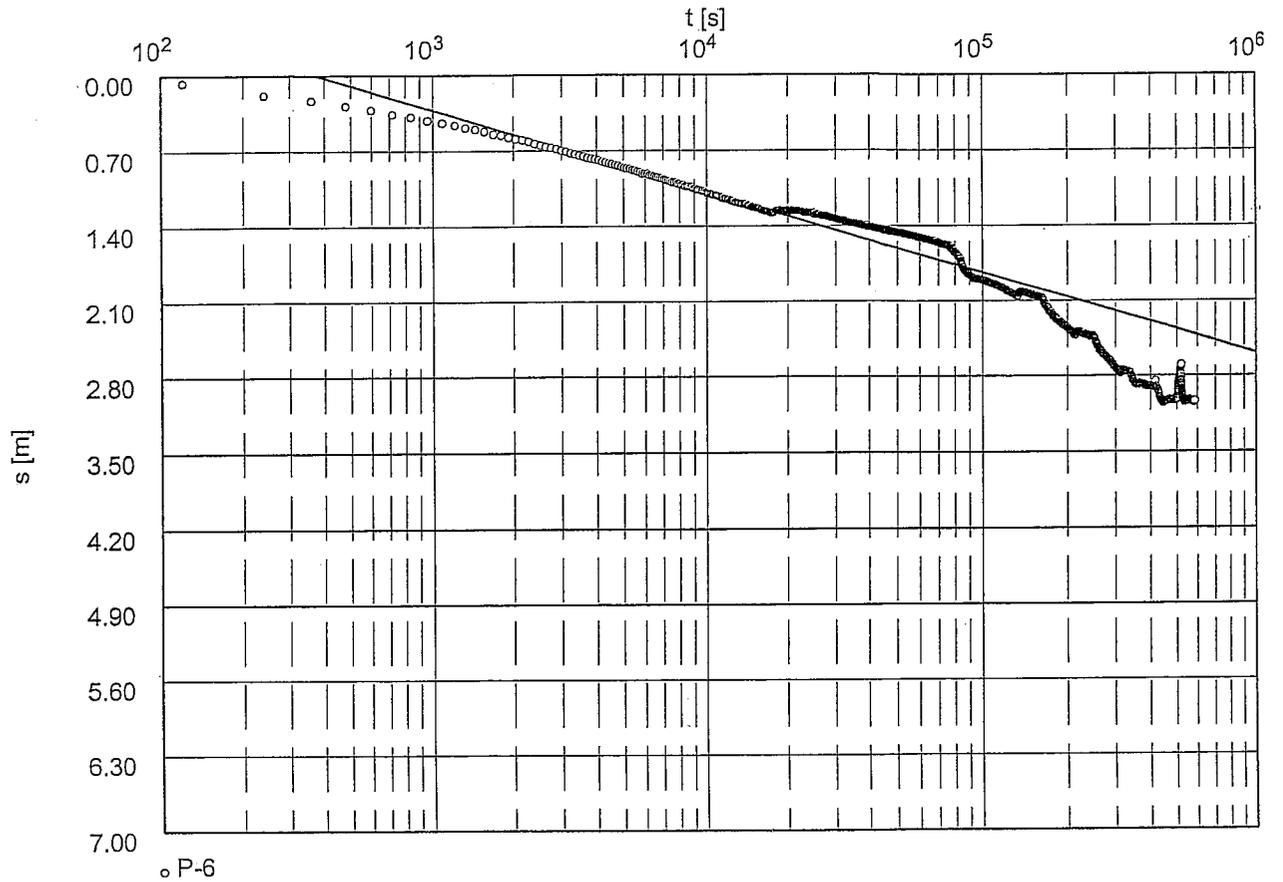| **Waterloo Hydrogeologic** 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 21.01.2002 Page 2
		Project: 001-7077
		Evaluated by: M. Chiasson

Pumping Test No. 1		Test conducted on: 00-11-01
P-2		P-6
Discharge 43.02 l/s		Distance from the pumping well 133.0000 m

Static water level: 4.3600 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
2	120.0000	4.4300	0.0700	
3	240.0000	4.5450	0.1850	
4	360.0000	4.5950	0.2350	
5	480.0000	4.6450	0.2850	
6	600.0000	4.6850	0.3250	
7	720.0000	4.7250	0.3650	
8	840.0000	4.7500	0.3900	
9	960.0000	4.7800	0.4200	
10	1080.0000	4.8050	0.4450	
11	1200.0000	4.8250	0.4650	
12	1320.0000	4.8500	0.4900	
13	1440.0000	4.8650	0.5050	
14	1560.0000	4.8850	0.5250	
15	1680.0000	4.9100	0.5500	
16	1800.0000	4.9200	0.5600	
17	1920.0000	4.9400	0.5800	
18	2040.0000	4.9550	0.5950	
19	2160.0000	4.9650	0.6050	
20	2280.0000	4.9800	0.6200	
21	2400.0000	5.0000	0.6400	
22	2520.0000	5.0150	0.6550	
23	2640.0000	5.0250	0.6650	
24	2760.0000	5.0350	0.6750	
25	2880.0000	5.0450	0.6850	
26	3000.0000	5.0600	0.7000	
27	3120.0000	5.0700	0.7100	
28	3240.0000	5.0850	0.7250	
29	3360.0000	5.0950	0.7350	
30	3480.0000	5.1050	0.7450	
31	3600.0000	5.1150	0.7550	
32	3720.0000	5.1250	0.7650	
33	3840.0000	5.1350	0.7750	
34	3960.0000	5.1400	0.7800	
35	4080.0000	5.1500	0.7900	
36	4200.0000	5.1600	0.8000	
37	4320.0000	5.1700	0.8100	
38	4440.0000	5.1800	0.8200	
39	4560.0000	5.1850	0.8250	
40	4680.0000	5.1950	0.8350	
41	4800.0000	5.2000	0.8400	
42	4920.0000	5.2100	0.8500	
43	5040.0000	5.2200	0.8600	
44	5160.0000	5.2250	0.8650	
45	5280.0000	5.2300	0.8700	
46	5400.0000	5.2400	0.8800	
47	5520.0000	5.2450	0.8850	
48	5640.0000	5.2550	0.8950	
49	5760.0000	5.2600	0.9000	
50	5880.0000	5.2750	0.9150	

Waterloo Hydrogeologic
180 Columbia St. W.
Waterloo,Ontario,Canada
ph.(519)746-1798

Pumping test analysis
Theis analysis method
Confined aquifer

Date: 21.01.2002 Page 1

Project: 001-7077
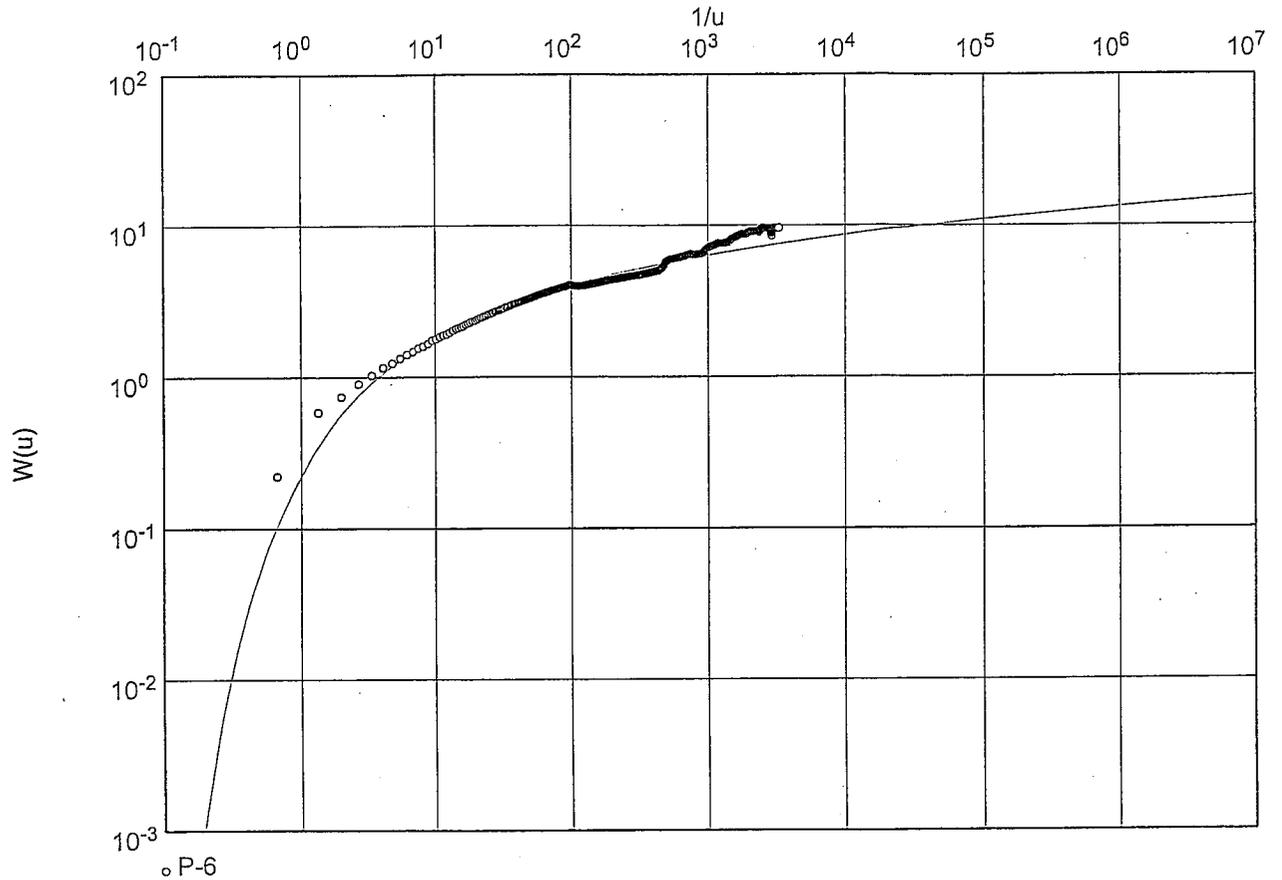
Evaluated by: M. Chiasson

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	
Discharge 43.02 l/s	

o P-6

Transmissivity [m²/s]: 1.08×10^{-2}

Storativity: 4.33×10^{-4}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Theis analysis method Confined aquifer	Date: 21.01.2002 Page 2
		Project: 001-7077
		Evaluated by: M. Chiasson

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	P-6
Discharge 43.02 l/s	Distance from the pumping well 133.0000 m

Static water level: 4.3600 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
2	120.0000	4.4300	0.0700	
3	240.0000	4.5450	0.1850	
4	360.0000	4.5950	0.2350	
5	480.0000	4.6450	0.2850	
6	600.0000	4.6850	0.3250	
7	720.0000	4.7250	0.3650	
8	840.0000	4.7500	0.3900	
9	960.0000	4.7800	0.4200	
10	1080.0000	4.8050	0.4450	
11	1200.0000	4.8250	0.4650	
12	1320.0000	4.8500	0.4900	
13	1440.0000	4.8650	0.5050	
14	1560.0000	4.8850	0.5250	
15	1680.0000	4.9100	0.5500	
16	1800.0000	4.9200	0.5600	
17	1920.0000	4.9400	0.5800	
18	2040.0000	4.9550	0.5950	
19	2160.0000	4.9650	0.6050	
20	2280.0000	4.9800	0.6200	
21	2400.0000	5.0000	0.6400	
22	2520.0000	5.0150	0.6550	
23	2640.0000	5.0250	0.6650	
24	2760.0000	5.0350	0.6750	
25	2880.0000	5.0450	0.6850	
26	3000.0000	5.0600	0.7000	
27	3120.0000	5.0700	0.7100	
28	3240.0000	5.0850	0.7250	
29	3360.0000	5.0950	0.7350	
30	3480.0000	5.1050	0.7450	
31	3600.0000	5.1150	0.7550	
32	3720.0000	5.1250	0.7650	
33	3840.0000	5.1350	0.7750	
34	3960.0000	5.1400	0.7800	
35	4080.0000	5.1500	0.7900	
36	4200.0000	5.1600	0.8000	
37	4320.0000	5.1700	0.8100	
38	4440.0000	5.1800	0.8200	
39	4560.0000	5.1850	0.8250	
40	4680.0000	5.1950	0.8350	
41	4800.0000	5.2000	0.8400	
42	4920.0000	5.2100	0.8500	
43	5040.0000	5.2200	0.8600	
44	5160.0000	5.2250	0.8650	
45	5280.0000	5.2300	0.8700	
46	5400.0000	5.2400	0.8800	
47	5520.0000	5.2450	0.8850	
48	5640.0000	5.2550	0.8950	
49	5760.0000	5.2600	0.9000	
50	5880.0000	5.2750	0.9150	

Waterloo Hydrogeologic
180 Columbia St. W.
Waterloo,Ontario,Canada
ph.(519)746-1798

Pumping test analysis
Time-Drawdown-method after
COOPER & JACOB
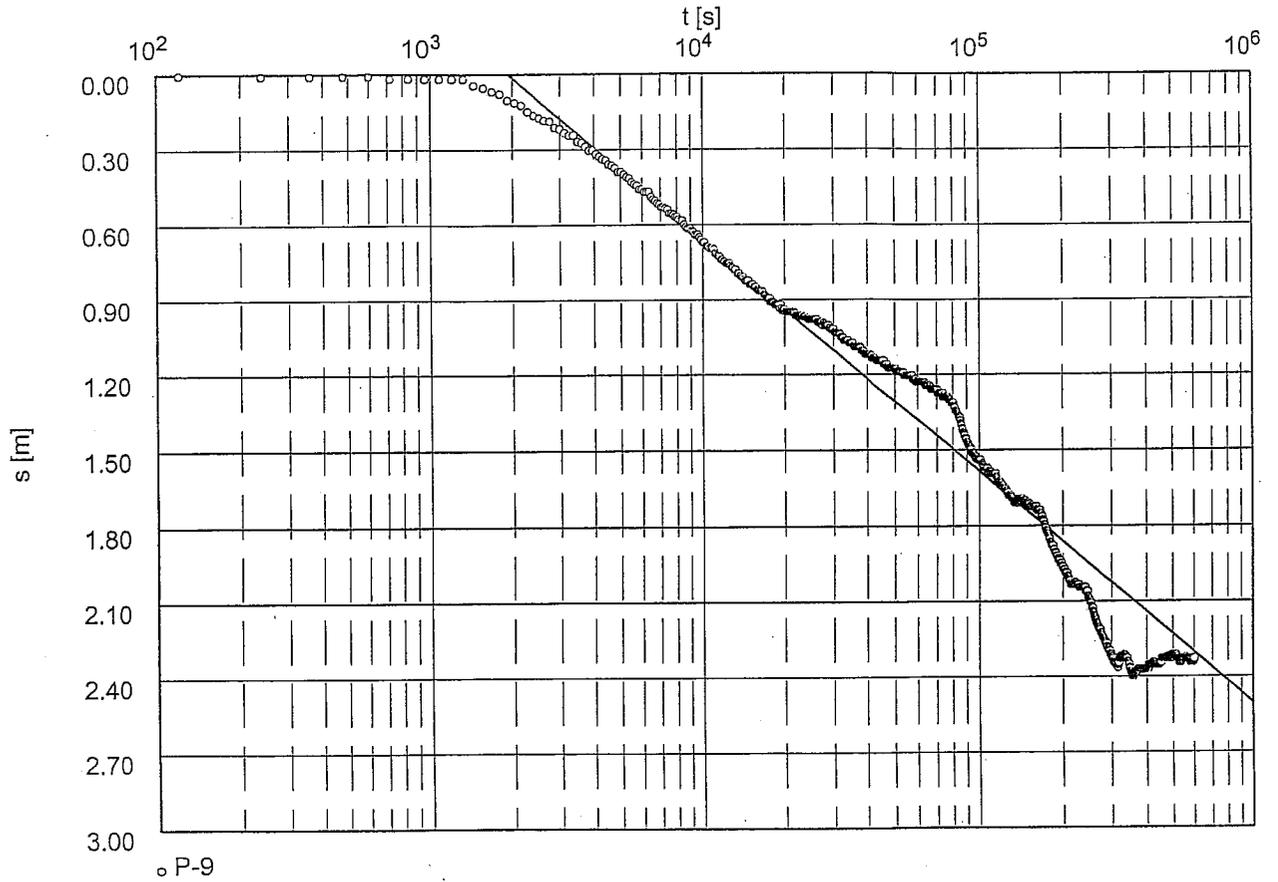Confined aquifer

Date: 21.01.2002 Page 1
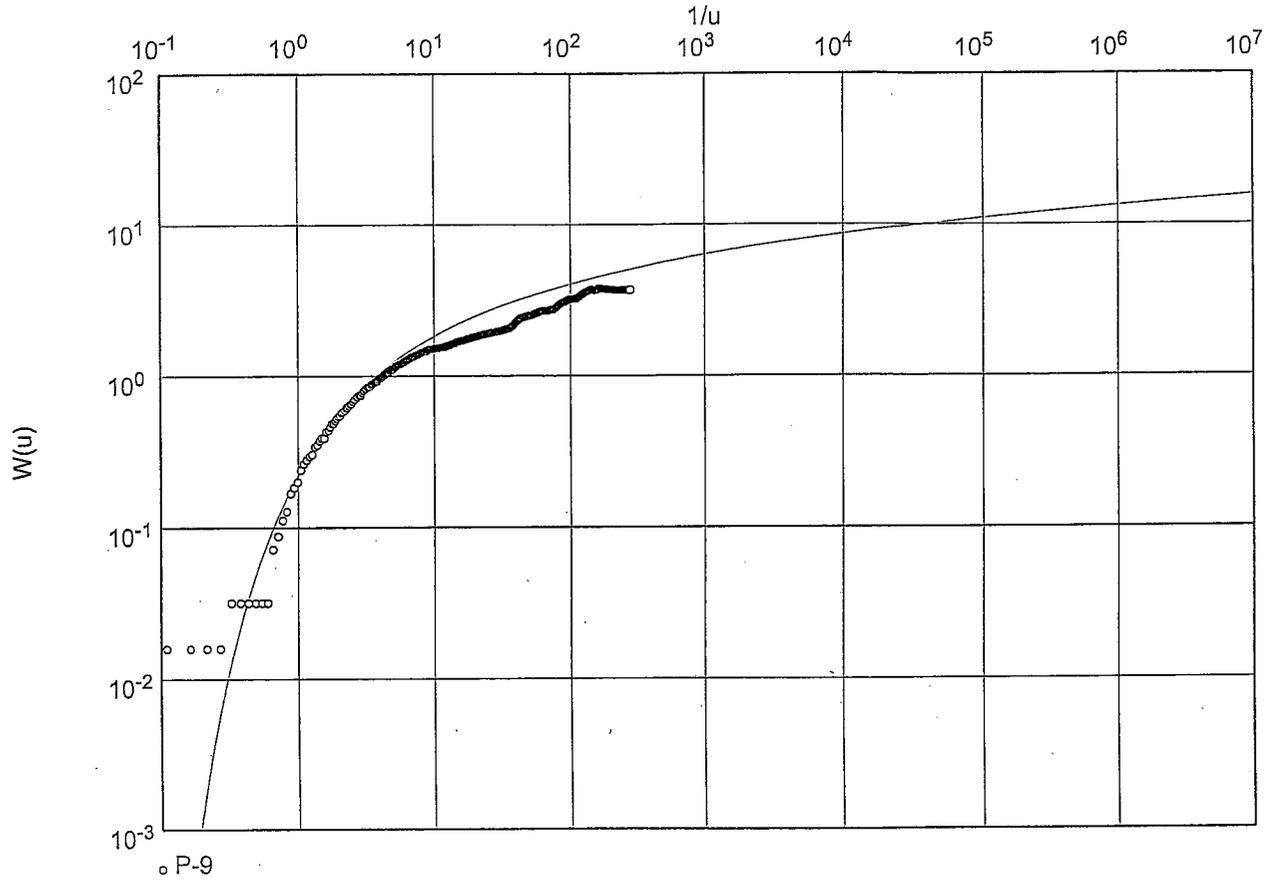
Project: 001-7077

Evaluated by: M. Chiasson

Pumping Test No. 1

Test conducted on: 00-11-01

P-2

Discharge 43.02 l/s

o P-9

Transmissivity [m²/s]: 8.52×10^{-3}

Storativity: 2.69×10^{-4}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 21.01.2002 Page 2
		Project: 001-7077
		Evaluated by: M. Chiasson

Pumping Test No. 1		Test conducted on: 00-11-01
P-2		P-9
Discharge 43.02 l/s		Distance from the pumping well 370.0000 m

Static water level: 5.5700 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
2	120.0000	5.5750	0.0050	
3	240.0000	5.5800	0.0100	
4	360.0000	5.5800	0.0100	
5	480.0000	5.5800	0.0100	
6	600.0000	5.5800	0.0100	
7	720.0000	5.5900	0.0200	
8	840.0000	5.5900	0.0200	
9	960.0000	5.5900	0.0200	
10	1080.0000	5.5900	0.0200	
11	1200.0000	5.5900	0.0200	
12	1320.0000	5.5900	0.0200	
13	1440.0000	5.6150	0.0450	
14	1560.0000	5.6250	0.0550	
15	1680.0000	5.6400	0.0700	
16	1800.0000	5.6500	0.0800	
17	1920.0000	5.6750	0.1050	
18	2040.0000	5.6850	0.1150	
19	2160.0000	5.6950	0.1250	
20	2280.0000	5.7200	0.1500	
21	2400.0000	5.7350	0.1650	
22	2520.0000	5.7450	0.1750	
23	2640.0000	5.7550	0.1850	
24	2760.0000	5.7600	0.1900	
25	2880.0000	5.7850	0.2150	
26	3000.0000	5.7900	0.2200	
27	3120.0000	5.8050	0.2350	
28	3240.0000	5.8150	0.2450	
29	3360.0000	5.8150	0.2450	
30	3480.0000	5.8400	0.2700	
31	3600.0000	5.8450	0.2750	
32	3720.0000	5.8600	0.2900	
33	3840.0000	5.8750	0.3050	
34	3960.0000	5.8750	0.3050	
35	4080.0000	5.8900	0.3200	
36	4200.0000	5.9000	0.3300	
37	4320.0000	5.9100	0.3400	
38	4440.0000	5.9150	0.3450	
39	4560.0000	5.9300	0.3600	
40	4680.0000	5.9350	0.3650	
41	4800.0000	5.9450	0.3750	
42	4920.0000	5.9600	0.3900	
43	5040.0000	5.9600	0.3900	
44	5160.0000	5.9700	0.4000	
45	5280.0000	5.9800	0.4100	
46	5400.0000	5.9850	0.4150	
47	5520.0000	6.0000	0.4300	
48	5640.0000	6.0100	0.4400	
49	5760.0000	6.0150	0.4450	
50	5880.0000	6.0300	0.4600	

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	
Discharge 43.02 l/s	

o P-9

Transmissivity [m²/s]: 5.42×10^{-3}

Storativity: 3.43×10^{-4}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Theis analysis method Confined aquifer	Date: 21.01.2002 Page 2
		Project: 001-7077
		Evaluated by: M. Chiasson

Pumping Test No. 1	Test conducted on: 00-11-01
P-2	P-9
Discharge 43.02 l/s	Distance from the pumping well 370.0000 m

Static water level: 5.5700 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
2	120.0000	5.5750	0.0050	
3	240.0000	5.5800	0.0100	
4	360.0000	5.5800	0.0100	
5	480.0000	5.5800	0.0100	
6	600.0000	5.5800	0.0100	
7	720.0000	5.5900	0.0200	
8	840.0000	5.5900	0.0200	
9	960.0000	5.5900	0.0200	
10	1080.0000	5.5900	0.0200	
11	1200.0000	5.5900	0.0200	
12	1320.0000	5.5900	0.0200	
13	1440.0000	5.6150	0.0450	
14	1560.0000	5.6250	0.0550	
15	1680.0000	5.6400	0.0700	
16	1800.0000	5.6500	0.0800	
17	1920.0000	5.6750	0.1050	
18	2040.0000	5.6850	0.1150	
19	2160.0000	5.6950	0.1250	
20	2280.0000	5.7200	0.1500	
21	2400.0000	5.7350	0.1650	
22	2520.0000	5.7450	0.1750	
23	2640.0000	5.7550	0.1850	
24	2760.0000	5.7600	0.1900	
25	2880.0000	5.7850	0.2150	
26	3000.0000	5.7900	0.2200	
27	3120.0000	5.8050	0.2350	
28	3240.0000	5.8150	0.2450	
29	3360.0000	5.8150	0.2450	
30	3480.0000	5.8400	0.2700	
31	3600.0000	5.8450	0.2750	
32	3720.0000	5.8600	0.2900	
33	3840.0000	5.8750	0.3050	
34	3960.0000	5.8750	0.3050	
35	4080.0000	5.8900	0.3200	
36	4200.0000	5.9000	0.3300	
37	4320.0000	5.9100	0.3400	
38	4440.0000	5.9150	0.3450	
39	4560.0000	5.9300	0.3600	
40	4680.0000	5.9350	0.3650	
41	4800.0000	5.9450	0.3750	
42	4920.0000	5.9600	0.3900	
43	5040.0000	5.9600	0.3900	
44	5160.0000	5.9700	0.4000	
45	5280.0000	5.9800	0.4100	
46	5400.0000	5.9850	0.4150	
47	5520.0000	6.0000	0.4300	
48	5640.0000	6.0100	0.4400	
49	5760.0000	6.0150	0.4450	
50	5880.0000	6.0300	0.4600	

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Theis analysis method Confined aquifer	Date: 21.01.2002 Page 1
		Project: 001-7077
		Evaluated by: M. Chiasson
Pumping Test No. 1		Test conducted on: 00-11-01
P-2		
Discharge 43.02 l/s		

o PZ-11

Transmissivity [m²/s]: 1.08×10^{-2}

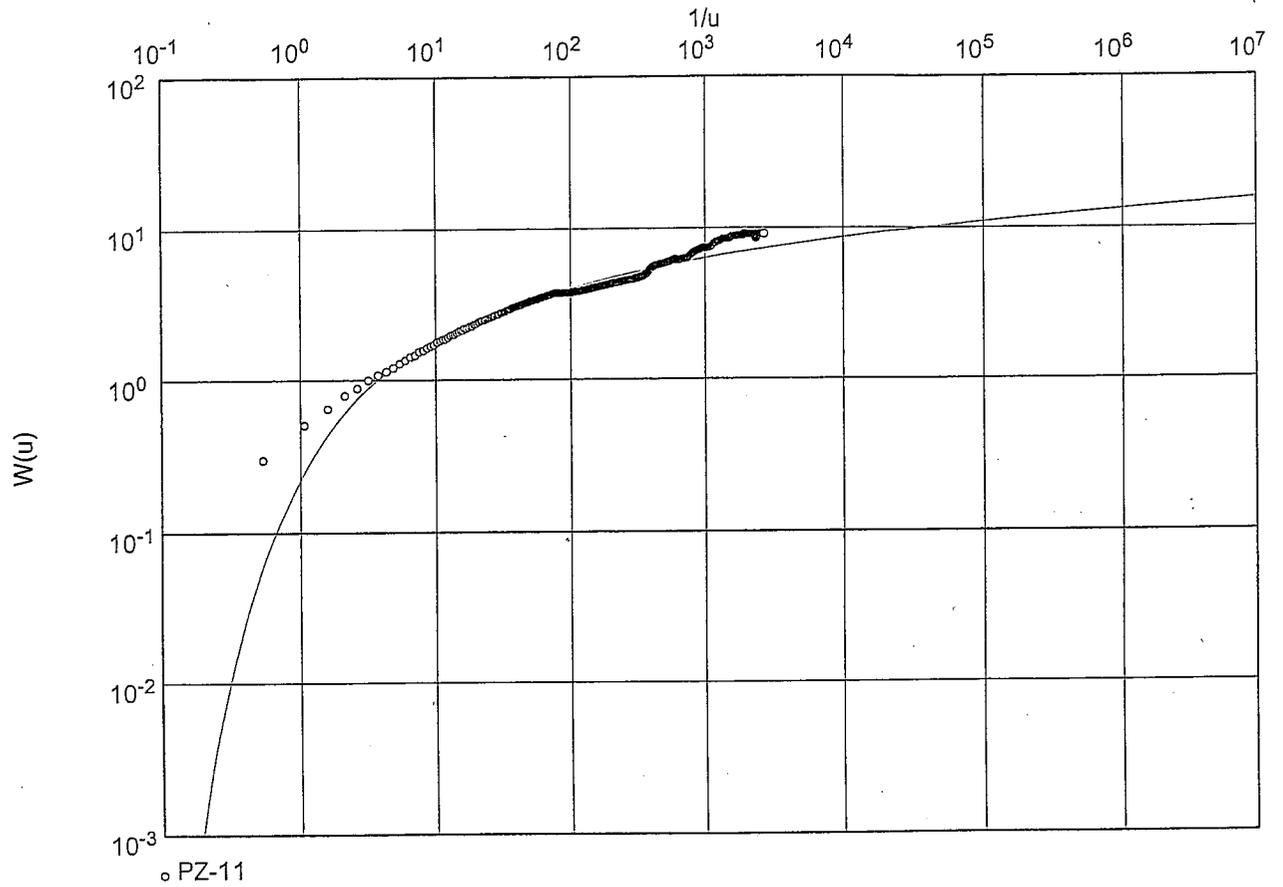| Waterloo Hydrogeologic	Pumping test analysis	Date: 21.01.2002 Page 2
Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Theis analysis method Confined aquifer	Project: 001-7077 Evaluated by: M. Chiasson

Pumping Test No. 1		Test conducted on: 00-11-01
P-2		PZ-11
Discharge 43.02 l/s		Distance from the pumping well 250.0000 m

Static water level: 4.9600 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
2	120.0000	5.0550	0.0950	
3	240.0000	5.1200	0.1600	
4	360.0000	5.1650	0.2050	
5	480.0000	5.2100	0.2500	
6	600.0000	5.2400	0.2800	
7	720.0000	5.2750	0.3150	
8	840.0000	5.3000	0.3400	
9	960.0000	5.3200	0.3600	
10	1080.0000	5.3400	0.3800	
11	1200.0000	5.3650	0.4050	
12	1320.0000	5.3850	0.4250	
13	1440.0000	5.4100	0.4500	
14	1560.0000	5.4200	0.4600	
15	1680.0000	5.4450	0.4850	
16	1800.0000	5.4550	0.4950	
17	1920.0000	5.4750	0.5150	
18	2040.0000	5.4900	0.5300	
19	2160.0000	5.5000	0.5400	
20	2280.0000	5.5200	0.5600	
21	2400.0000	5.5350	0.5750	
22	2520.0000	5.5450	0.5850	
23	2640.0000	5.5500	0.5900	
24	2760.0000	5.5650	0.6050	
25	2880.0000	5.5800	0.6200	
26	3000.0000	5.5900	0.6300	
27	3120.0000	5.5950	0.6350	
28	3240.0000	5.6100	0.6500	
29	3360.0000	5.6200	0.6600	
30	3480.0000	5.6350	0.6750	
31	3600.0000	5.6350	0.6750	
32	3720.0000	5.6550	0.6950	
33	3840.0000	5.6550	0.6950	
34	3960.0000	5.6650	0.7050	
35	4080.0000	5.6800	0.7200	
36	4200.0000	5.6800	0.7200	
37	4320.0000	5.6950	0.7350	
38	4440.0000	5.7000	0.7400	
39	4560.0000	5.7100	0.7500	
40	4680.0000	5.7250	0.7650	
41	4800.0000	5.7250	0.7650	
42	4920.0000	5.7350	0.7750	
43	5040.0000	5.7400	0.7800	
44	5160.0000	5.7450	0.7850	
45	5280.0000	5.7500	0.7900	
46	5400.0000	5.7650	0.8050	
47	5520.0000	5.7700	0.8100	
48	5640.0000	5.7700	0.8100	
49	5760.0000	5.7800	0.8200	
50	5880.0000	5.7900	0.8300	

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 21.01.2002 Page 1
		Project: 001-7077
		Evaluated by: M. Chiasson
Pumping Test No. 1	Test conducted on: 00-11-01	
P-2		
Discharge 43.02 l/s		

o PZ-11

Transmissivity [m²/s]: 1.01×10^{-2}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	Pumping test analysis Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 21.01.2002 Page 2
		Project: 001-7077
		Evaluated by: M. Chiasson

Pumping Test No. 1		Test conducted on: 00-11-01
P-2		PZ-11
Discharge 43.02 l/s		Distance from the pumping well 250.0000 m

Static water level: 4.9600 m below datum

	Pumping test duration [s]	Water level [m]	Drawdown [m]	
2	120.0000	5.0550	0.0950	
3	240.0000	5.1200	0.1600	
4	360.0000	5.1650	0.2050	
5	480.0000	5.2100	0.2500	
6	600.0000	5.2400	0.2800	
7	720.0000	5.2750	0.3150	
8	840.0000	5.3000	0.3400	
9	960.0000	5.3200	0.3600	
10	1080.0000	5.3400	0.3800	
11	1200.0000	5.3650	0.4050	
12	1320.0000	5.3850	0.4250	
13	1440.0000	5.4100	0.4500	
14	1560.0000	5.4200	0.4600	
15	1680.0000	5.4450	0.4850	
16	1800.0000	5.4550	0.4950	
17	1920.0000	5.4750	0.5150	
18	2040.0000	5.4900	0.5300	
19	2160.0000	5.5000	0.5400	
20	2280.0000	5.5200	0.5600	
21	2400.0000	5.5350	0.5750	
22	2520.0000	5.5450	0.5850	
23	2640.0000	5.5500	0.5900	
24	2760.0000	5.5650	0.6050	
25	2880.0000	5.5800	0.6200	
26	3000.0000	5.5900	0.6300	
27	3120.0000	5.5950	0.6350	
28	3240.0000	5.6100	0.6500	
29	3360.0000	5.6200	0.6600	
30	3480.0000	5.6350	0.6750	
31	3600.0000	5.6350	0.6750	
32	3720.0000	5.6550	0.6950	
33	3840.0000	5.6550	0.6950	
34	3960.0000	5.6650	0.7050	
35	4080.0000	5.6800	0.7200	
36	4200.0000	5.6800	0.7200	
37	4320.0000	5.6950	0.7350	
38	4440.0000	5.7000	0.7400	
39	4560.0000	5.7100	0.7500	
40	4680.0000	5.7250	0.7650	
41	4800.0000	5.7250	0.7650	
42	4920.0000	5.7350	0.7750	
43	5040.0000	5.7400	0.7800	
44	5160.0000	5.7450	0.7850	
45	5280.0000	5.7500	0.7900	
46	5400.0000	5.7650	0.8050	
47	5520.0000	5.7700	0.8100	
48	5640.0000	5.7700	0.8100	
49	5760.0000	5.7800	0.8200	
50	5880.0000	5.7900	0.8300	