ANNEXE G

RELEVÉ GÉODÉSIQUE

ANNEXE

ARPENTAGE - INTERSAN STE-SOPHIE

Site	Point relevé	Est (m)	Nord (m)	Élévation du sol (m)	Élévation de la margelle (m)
S-1	PZ-10	272687,27	5071442,40	75,56	76,21
	Puits biogaz	272818,85	5071560,73	74,29	75,23
S-2	PO-00-1	272795,61	5071312,46	73,88	74,83
S-3	P-6	272896,58	5071211,88	73,68	74,32
S-4	AS-10	272970,79	5071122,03	73,76	74,11
S-6	S-6S	273217,07	5070717,01	74,05	74,92
S-7	S-7S	273421,37	5070487,80	73,79	74,66
	S-7R	273419,82	5070489,74	73,79	74,67
S-8	S-8T	272574,75	5071141,56	74,51	75,41
	S-8R	272572,79	5071140,90	74,51	74,90
S-9	S-9A	272698,36	5071004,26	73,90	74,76
	S-9R	272699,78	5071006,08	73,90	74,46
S-10	S-10S (ECZ-1)	272835,06	5070621,37	74,34	75,17
S-11	S-11R	272828,02	5070868,53	74,23	74,92
S-12	S-12S	273074,68	5070584,88	73,72	74,34
	S-12A	273077,01	5070583,09	73,72	74,25
	S-12T	273078,28	5070585,36	73,72	74,57
	S-12R	273078,46	5070582,06	73,72	74,73
S-13	S-13S (ECZ-2)	272654,40	5071000,13	74,49	75,44
S-14	S-14R	273284,95	5070368,99	73,27	74,03
S-15	S-15S	272927,11	5070402,29	73,72	74,34
	Essai au cône	272925,79	5070403,31	73,72	--
S-16	Forage roc	272664,61	5070684,01	74,08	--
S-17	S-17S	272555,17	5070804,09	73,58	74,31
S-18	S-18R	272536,71	5070844,73	73,77	74,51
S-19	Forage roc	272410,11	5070999,00	74,24	--
S-20	S-20S	272236,49	5070825,89	74,76	75,45
	S-20R	272237,97	5070827,24	74,76	75,50
S-21	S-21R	272719,86	5070292,00	74,20	74,81
S-22	S-22S	272434,85	5070561,97	74,44	74,94
	S-22R	272436,21	5070560,51	74,44	75,18
S-23	S-23S	272941,88	5070069,45	75,10	76,08
	S-23A	272941,34	5070072,03	74,97	75,73
	Essai au cône	272956,70	5070059,37	75,04	--
S-24	S-24R	272725,28	5069860,41	74,94	75,85
S-25	S-25S	272508,19	5070072,52	74,23	74,61
	S-25A	272515,64	5070072,74	74,23	74,90
	Essai au cône	272513,90	5070079,68	74,23	--
S-26	Essai au cône	272262,36	5070352,05	74,13	--
S-27	S-27S	272140,33	5070463,63	74,78	75,78
	Essai au cône	272144,15	5070473,78	74,78	--
S-28	S-28R	271988,77	5070632,71	74,65	75,39
S-29	S-29S	273026,05	5070932,90	73,97	74,82
Autres	PE-1	272773,25	5071364,17	73,83	74,77
	AS-9	273121,76	5070965,35	74,75	75,37
	PZ-2	273309,11	5070760,16	74,05	74,25
	AS-8	273305,13	5070752,97	74,06	75,00
	AS-7	273513,42	5070543,31	74,04	74,75
	PZ-1	273530,00	5070561,53	74,04	74,35
Site	**Point**	**Est**	**Nord**	**niveau du sol**	**niveau de l'eau**
Eaux de surface	ES-1	272682,42	5071428,15	71,49	71,59
	ES-2	273492,77	5070527,81	73,10	73,20
	ES-3	272513,41	5070111,88	73,49	74,10
	ES-4	272830,23	5070492,29	72,56	72,80
	ES-5	273127,34	5070180,79	72,51	72,83
	ES-6	272306,29	5071079,06	--	71,96

Notes:

-- : Donnée non diponible.

ANNEXE H

DOCUMENTS PHOTOGRAPHIQUES DE TERRAIN

PHOTO 1 : Réalisation du forage au site S-6. Vue vers le nord.

PHOTO 2 : Station de mesure du niveau d'eau de surface ES-4. Vue vers le nord.

PHOTO 3 : Réalisation d'un forage au site S-9 à l'aide du marteau fond de trou (rotation-percussion). Vue vers le nord.

PHOTO 4 : Réalisation d'un forage au site S-25. Vue vers l'est.

PHOTO 5 : Roc carotté au site de forage S-12, profondeur de 12,85 m à 17,20 m.

PHOTO 6 : Roc carotté site de forage S-18, profondeur de 10,41 m à 12,01 m.

PHOTO 7 : Roc carotté au site de forage S-20, profondeur de 6,40 m à 9,14 m.

PHOTO 8 : Roc carotté au site de forage S-22, profondeur de 10,67 m à 12,37 m.

PHOTO 9 : Développement des puits d'observation au site de forage S-12. Vue vers le sud.

ANNEXE I

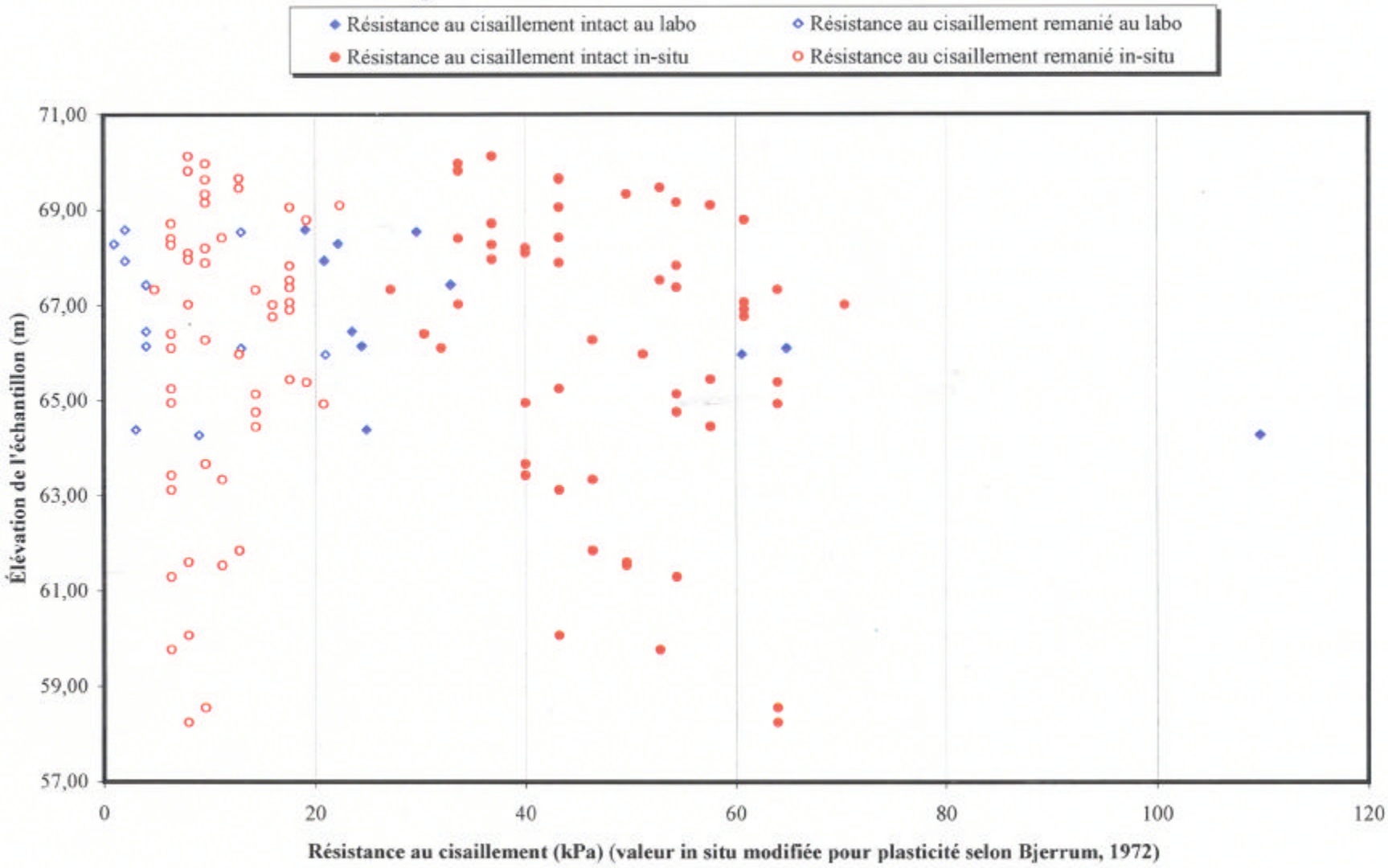
RÉSULTATS DES ANALYSES DE STABILITÉ DE PENTE

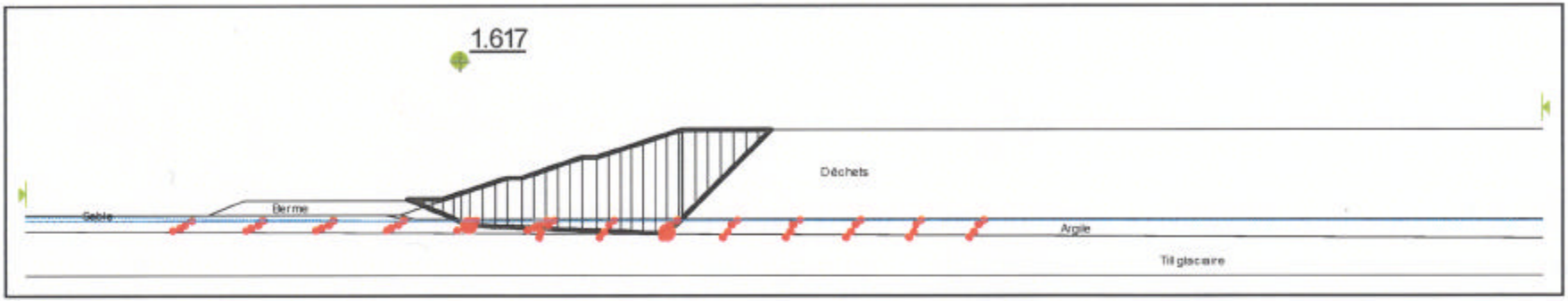
TABLEAU I-1

RÉSULTATS DES ANALYSES DE STABILITÉ DE PENTE

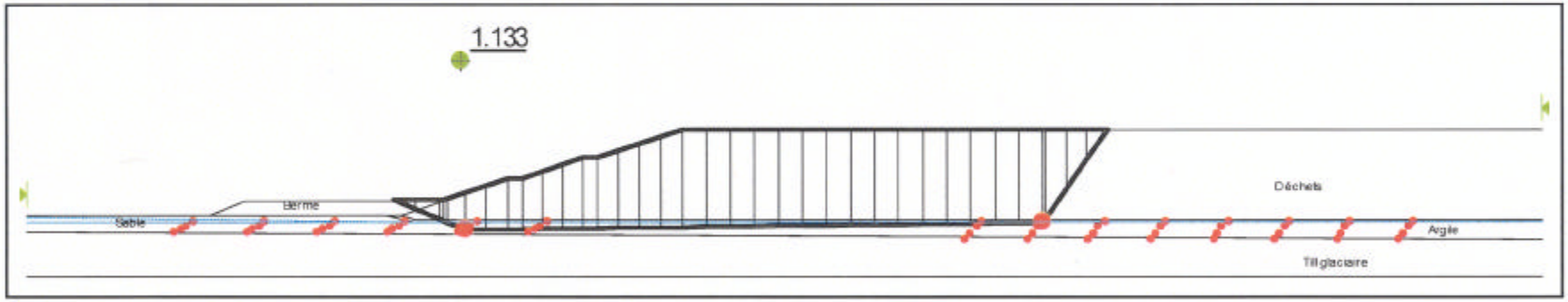
Secteur	Conditions	Élévation du fond argileux	Élévation / épaisseur des déchets	FACTEUR DE SÉCURITÉ MINIMUM OBTENU (statique/pseudo-statique) *(référence au no. de figure)*	FACTEUR DE SÉCURITÉ MINIMUM VISÉ (statique/pseudo-statique)
NORD	Remblai final - rupture dans l'argile	72,0m (moyenne approximative entre 70,56m (est) et 72,76m (ouest))	97,90m / 25,90m	*(I-1)* 1,617 / 1,133 *(I-2)*	1,50/1,10
	Remblai final - rupture le long du système d'étanchéité			*(I-3)* 1,701 / 1,267 *(I-4)*	
CENTRE	Remblai final - rupture dans l'argile	70,7m (côté est plus critique que côté ouest)	93,70m / 23,00m	*(I-5)* 1,799 / 1,291 *(I-6)*	1,50/1,10
	Remblai final - rupture le long du système d'étanchéité			*(I-7)* 1,881 / 1,485 *(I-8)*	
SUD	Remblai final - rupture dans l'argile	63,5m (moyenne approximative entre 61,70m (est) et 66,42m (ouest))	93,40m / 29,90m	*(I-9)* 2,043 / 1,155 *(I-10)*	1,50/1,10
	Remblai final - rupture le long du système d'étanchéité			*(I-11)* 2,253 / 1,505 *(I-12)*	
	Drainé - En période d'excavation (rupture en blocs)	61,70m (côté est plus critique)	NA	*(I-13)* 1,557 / NA	1,30/NA
	Non drainé - En période d'excavation (rupture en blocs)			*(I-14)* 2,810 / NA	
	Drainé - En période d'excavation (rupture circulaire)			*(I-15)* 1,325 / NA	
	Non drainé - En période d'excavation (rupture circulaire)			*(I-16)* 1,525 / NA	

Figure I-1 Sommaire des Résistances au Cisaillement

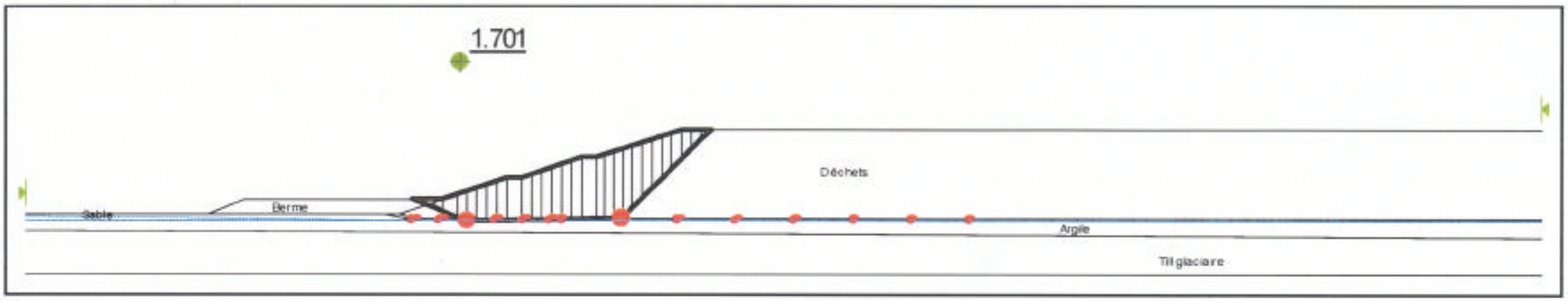




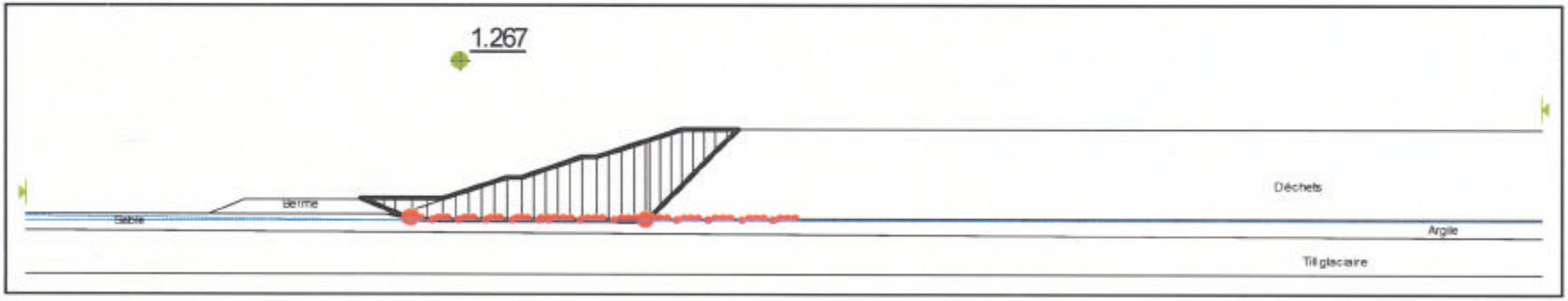
NORD – Condition finale - rupture dans l'argile - statique	FIGURE I-1



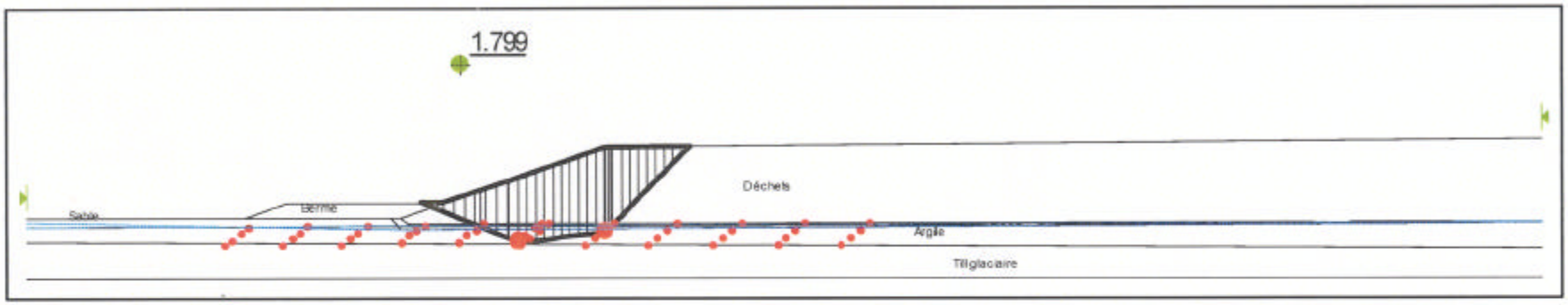
NORD – Condition finale - rupture dans l'argile – pseudo-statique	FIGURE I-2



NORD – Condition finale - rupture le long du système d'étanchéité - statique	FIGURE I-3

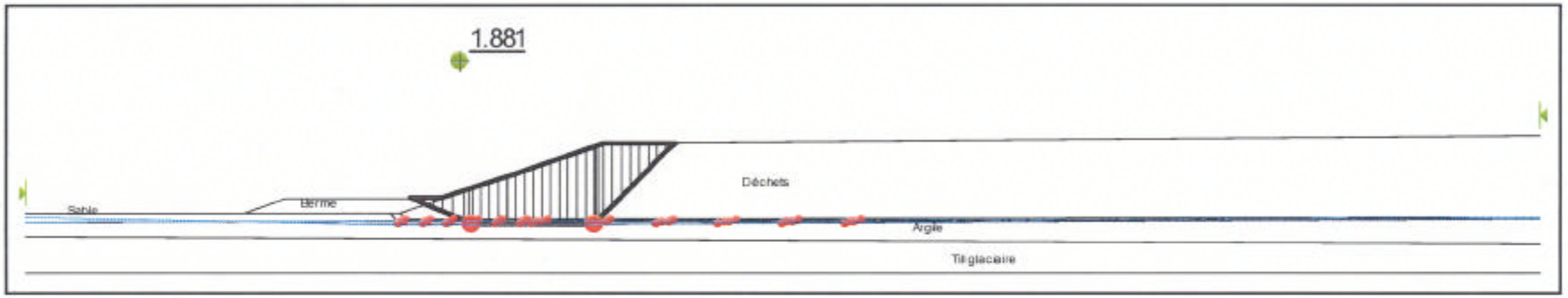


NORD – Condition finale - rupture le long du système d'étanchéité – pseudo-statique	FIGURE I-4

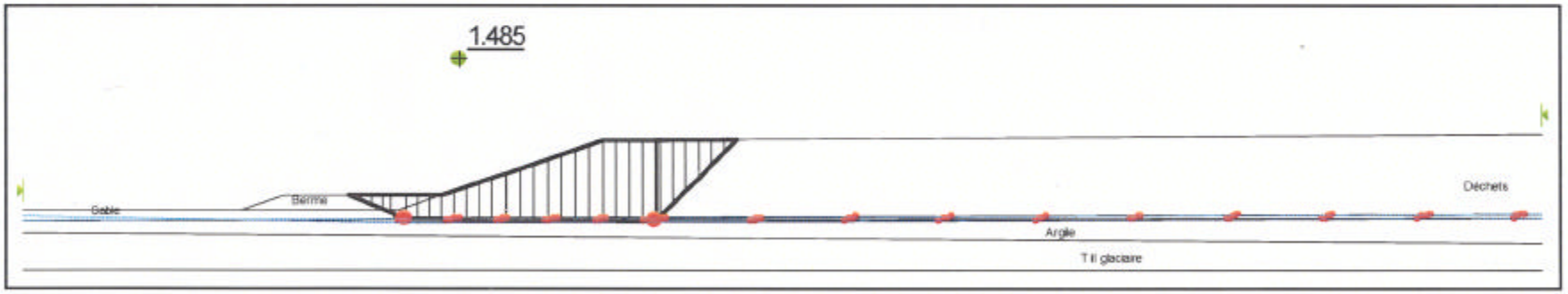


CENTRE – Condition finale – rupture dans l'argile – statique	FIGURE I-5

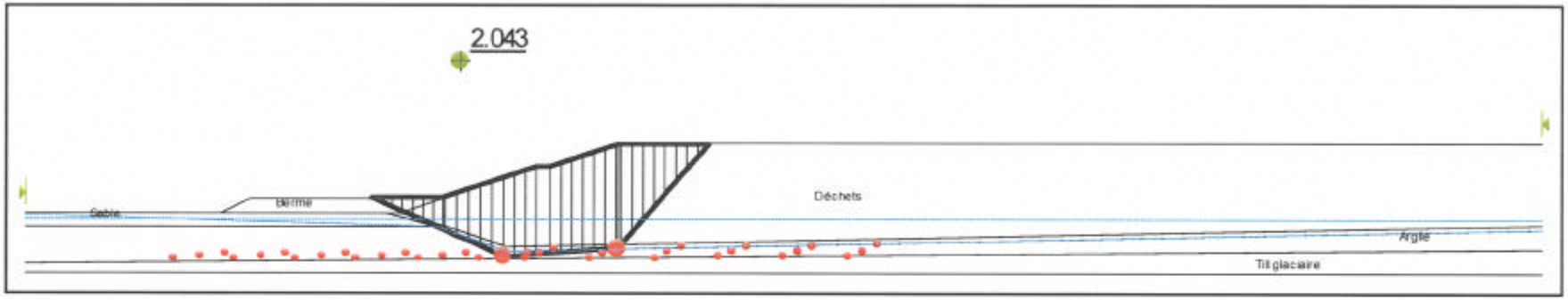
CENTRE – Condition finale – rupture dans l'argile - pseudo-statique	FIGURE I-6



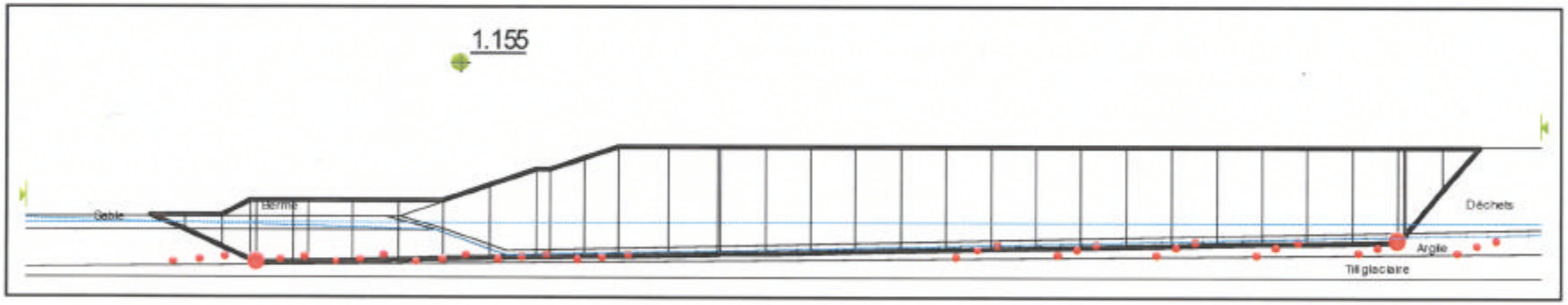
CENTRE – Condition finale – rupture le long du système d'étanchéité – statique	FIGURE I-7



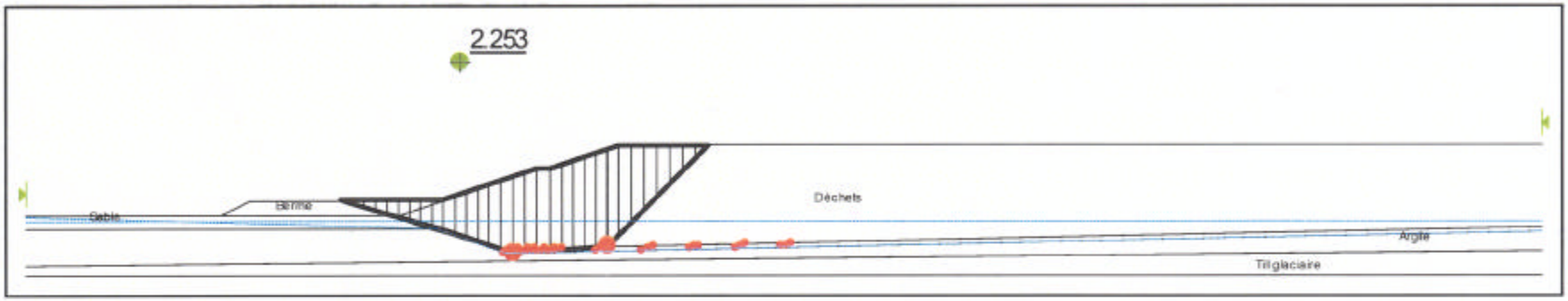
CENTRE – Condition finale – rupture le long du système d'étanchéité – pseudo-statique	FIGURE I-8



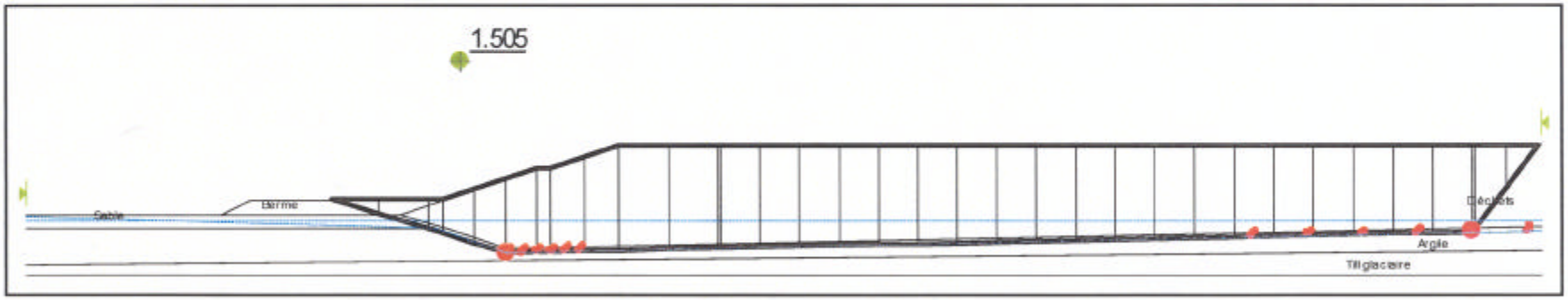
SUD – Condition finale – rupture dans l'argile – statique	FIGURE I-9



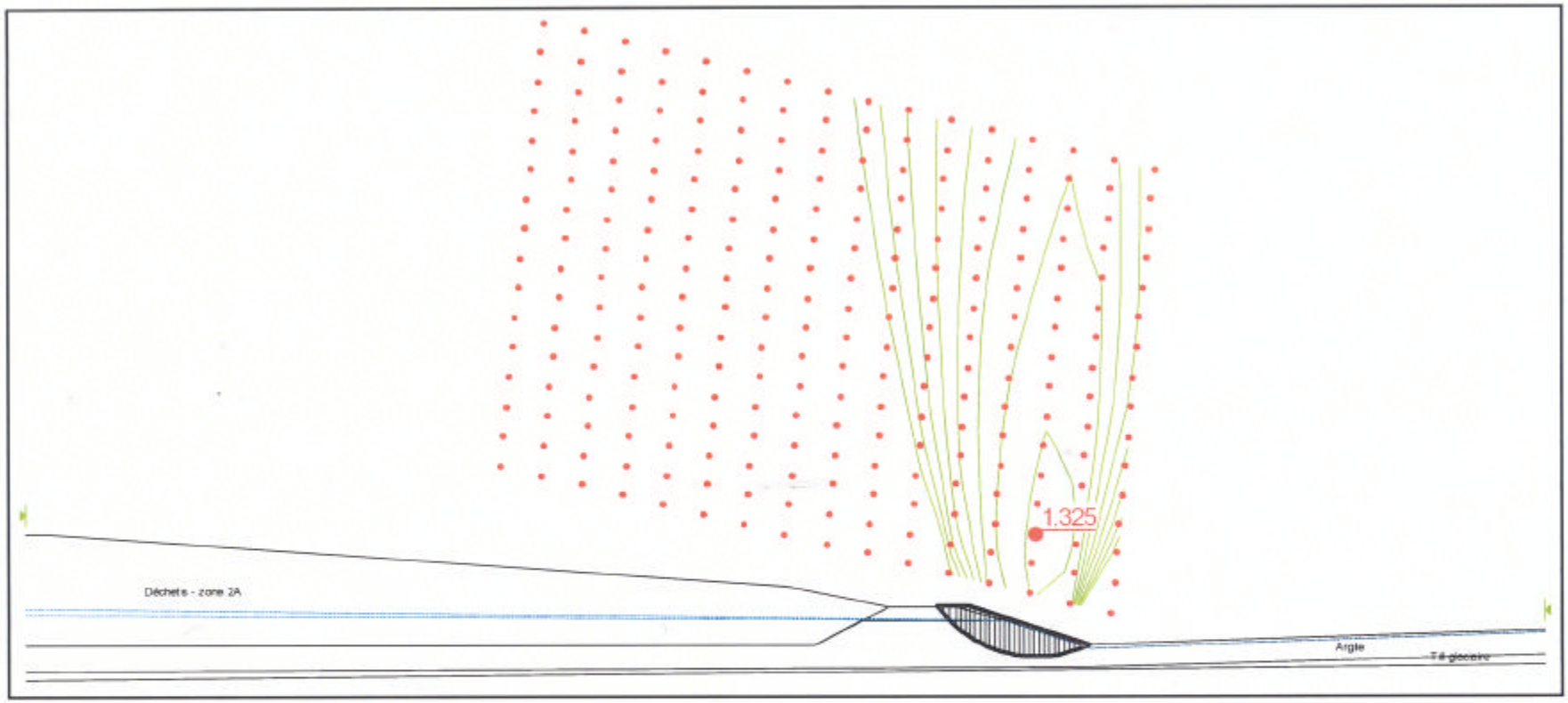
SUD – Condition finale – rupture dans l'argile - pseudo-statique	FIGURE I-10



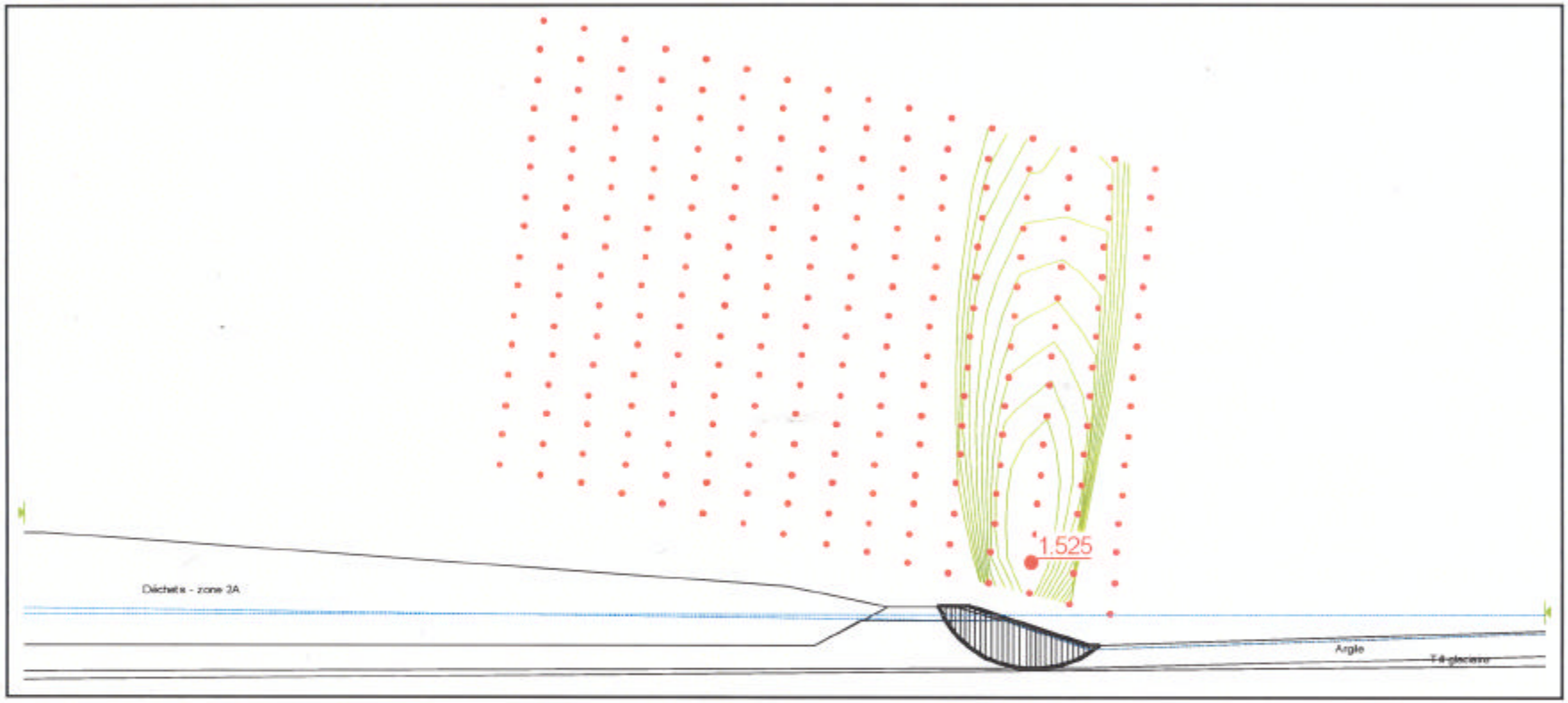
SUD – Condition finale – rupture le long du système d'étanchéité – statique	FIGURE I-11



SUD – Condition finale – rupture le long du système d'étanchéité – pseudo-statique	FIGURE I-12



SUD – Condition drainée, en période d'excavation (rupture circulaire) – statique	FIGURE I-15



SUD – Condition non drainée, en période d'excavation (rupture circulaire) – statique	FIGURE I-16

ANNEXE J

RÉSULTATS DES ESSAIS DE PERMÉABILITÉ ET DE L'ESSAI DE POMPAGE

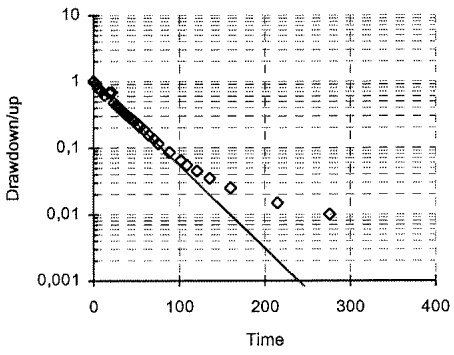
J-1

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	

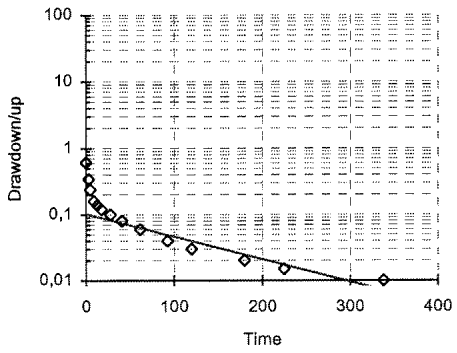


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,52	1,01		0,005	-0,017
2)	3,00	2,44	0,93		-0,078	-0,103
3)	5,00	2,32	0,81		-0,217	-0,160
4)	9,00	2,23	0,72		-0,335	-0,275
5)	13,00	2,13	0,62		-0,486	-0,391
6)	18,00	2,19	0,68		-0,393	-0,534
7)	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	

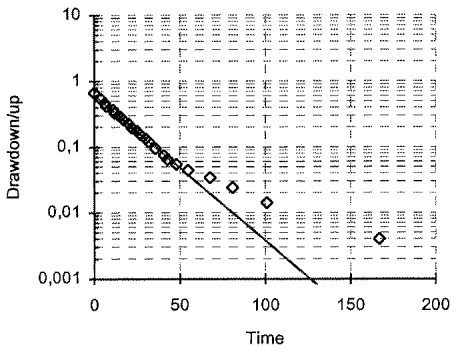


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,17	0,61		-0,494	-2,275
2)	3,00	1,90	0,34		-1,079	-2,299
3)	5,00	1,80	0,24		-1,427	-2,315
4)	9,00	1,72	0,16		-1,833	-2,347
5)	13,00	1,70	0,14		-1,966	-2,378
6)	18,00	1,68	0,12		-2,120	-2,418
7)	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.: 011-7112
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	

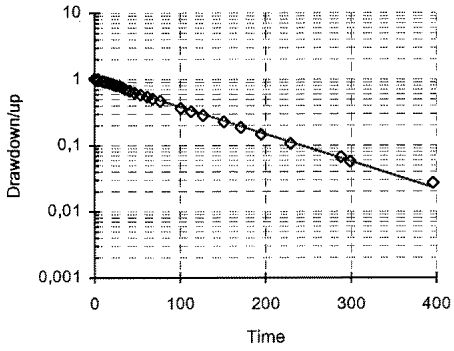


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,53	0,66		-0,409	-0,480
2)	4,00	2,40	0,53		-0,627	-0,684
3)	6,00	2,33	0,46		-0,768	-0,786
4)	7,00	2,28	0,41		-0,882	-0,837
5)	11,00	2,23	0,36		-1,011	-1,040
6)	12,00	2,19	0,32		-1,127	-1,091
7)	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	

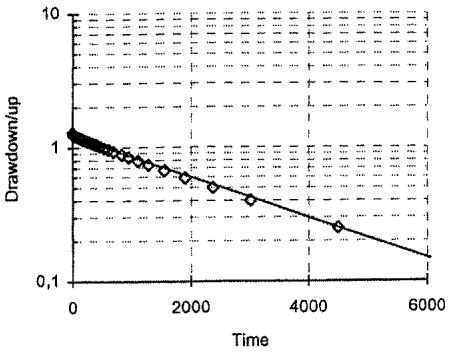


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,60	1,03		0,027	0,004
2)	4,00	2,58	1,01		0,007	-0,034
3)	5,00	2,55	0,98		-0,023	-0,043
4)	9,00	2,52	0,95		-0,054	-0,082
5)	11,00	2,50	0,93		-0,076	-0,101
6)	13,00	2,49	0,92		-0,087	-0,120
7)	15,00	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	

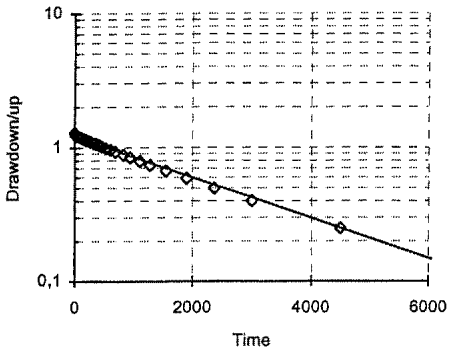


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,70	1,29		0,255	0,192
2)	10,00	2,65	1,24		0,215	0,189
3)	18,00	2,64	1,23		0,207	0,186
4)	38,00	2,63	1,22		0,199	0,179
5)	47,00	2,63	1,22		0,195	0,176
6)	55,00	2,62	1,21		0,191	0,173
7)	77,00	2,61	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	

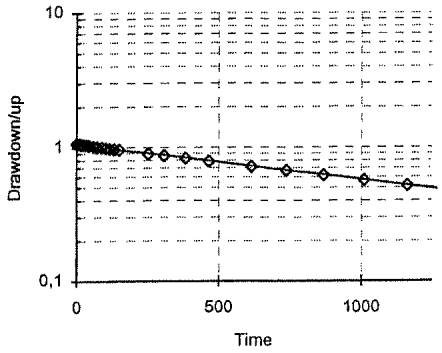


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
36)	1119,00	2,20	0,79		-0,236	-0,199
37)	1297,00	2,15	0,74		-0,301	-0,261
38)	1560,00	2,08	0,67		-0,400	-0,353
39)	1903,00	2,00	0,59		-0,528	-0,473
40)	2367,00	1,91	0,50		-0,693	-0,635
41)	2999,00	1,81	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	

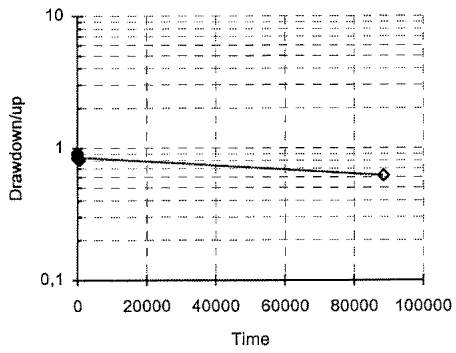


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	2,30	1,07		0,066	0,052
2)	7,00	2,29	1,06		0,056	0,048
3)	12,00	2,30	1,06		0,061	0,045
4)	17,00	2,28	1,05		0,047	0,042
5)	24,00	2,29	1,05		0,052	0,038
6)	30,00	2,27	1,04		0,037	0,034
7)	37,00	2,28	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
Project No.: 011-7112
Client Name: Intersan
Identification: S-23A
Analysis By: C.Forget
Run Date:

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	

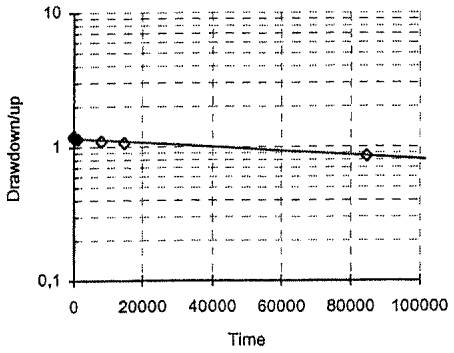


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	8,07	0,92		-0,083	-0,161
2)	5,00	8,05	0,90		-0,105	-0,161
3)	8,00	8,04	0,89		-0,117	-0,161
4)	11,00	8,00	0,85		-0,163	-0,161
5)	32,00	7,99	0,84		-0,174	-0,161
6)	50,00	7,99	0,84		-0,180	-0,161
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

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Étude hydrogéo
Project No.: 011-7112
Client Name: Intersan
Identification: S-25A
Analysis By: C.Forget
Run Date:

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	

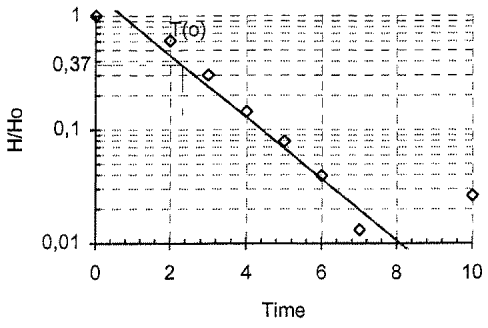


Meas. #	Time seconds	Field Meas. meters	Drawdown/up meters		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0,00	4,17	1,21		0,191	0,152
2)	15,00	4,15	1,19		0,170	0,152
3)	22,00	4,14	1,18		0,161	0,152
4)	30,00	4,14	1,18		0,161	0,152
5)	45,00	4,13	1,17		0,157	0,152
6)	142,00	4,13	1,17		0,153	0,151
7)	337,00	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	

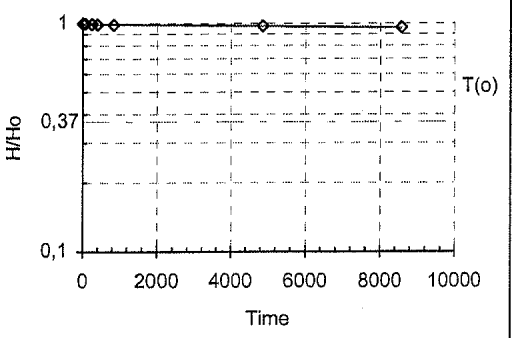


Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	9,40	0,38	0,0000	0,4459
2)	2,00	9,25	0,23	-0,5021	-0,8025
3)	3,00	9,13	0,12	-1,1952	-1,4267
4)	4,00	9,07	0,05	-1,9328	-2,0509
5)	5,00	9,05	0,03	-2,5390	-2,6751
6)	6,00	9,03	0,01	-3,2321	-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

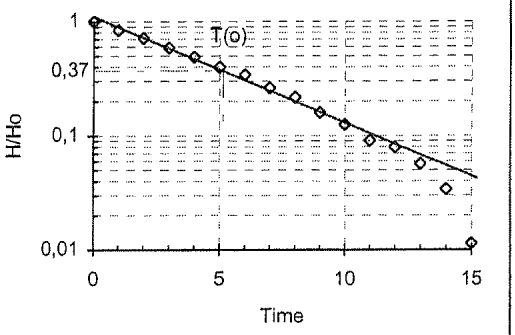
Hvorslev's Method for Calculating Hydraulic Conductivity

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	

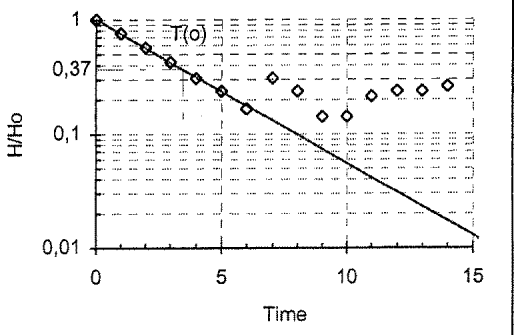


Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	7,69	0,44	0,0000	0,0973
2)	1,00	7,62	0,37	-0,1733	-0,1164
3)	2,00	7,57	0,32	-0,3342	-0,3301
4)	3,00	7,51	0,26	-0,5261	-0,5439
5)	4,00	7,47	0,22	-0,7161	-0,7576
6)	5,00	7,43	0,18	-0,9220	-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	

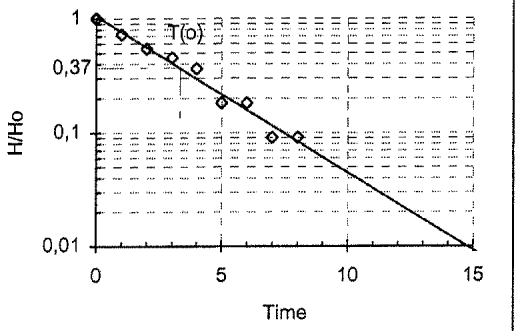


Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	7,86	0,42	0,0000	0,0117
2)	1,00	7,76	0,32	-0,2719	-0,2788
3)	2,00	7,68	0,24	-0,5596	-0,5692
4)	3,00	7,62	0,18	-0,8473	-0,8597
5)	4,00	7,57	0,13	-1,1727	-1,1501
6)	5,00	7,54	0,10	-1,4351	-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	Project No.:	011-7112
Client Name:	Intersan	Run Date:	
Analysis By:	C.Forget	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	

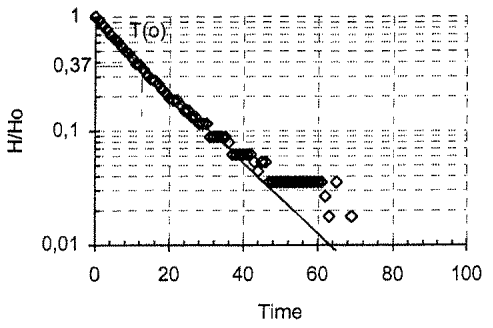


Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	1,00	12,55	0,11	0,0000	0,0485
2)	2,00	12,52	0,08	-0,3185	-0,2673
3)	3,00	12,50	0,06	-0,6061	-0,5830
4)	4,00	12,49	0,05	-0,7885	-0,8987
5)	5,00	12,48	0,04	-1,0116	-1,2144
6)	6,00	12,46	0,02	-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	

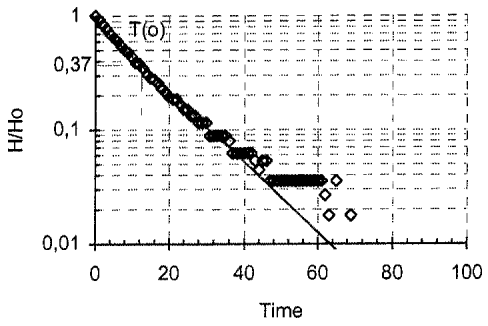


Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
1)	0,00	4,29	0,57	0,0000	-0,1107
2)	1,00	4,25	0,53	-0,0734	-0,1817
3)	2,00	4,20	0,48	-0,1735	-0,2528
4)	3,00	4,16	0,44	-0,2615	-0,3238
5)	4,00	4,12	0,40	-0,3579	-0,3949
6)	5,00	4,09	0,37	-0,4369	-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	



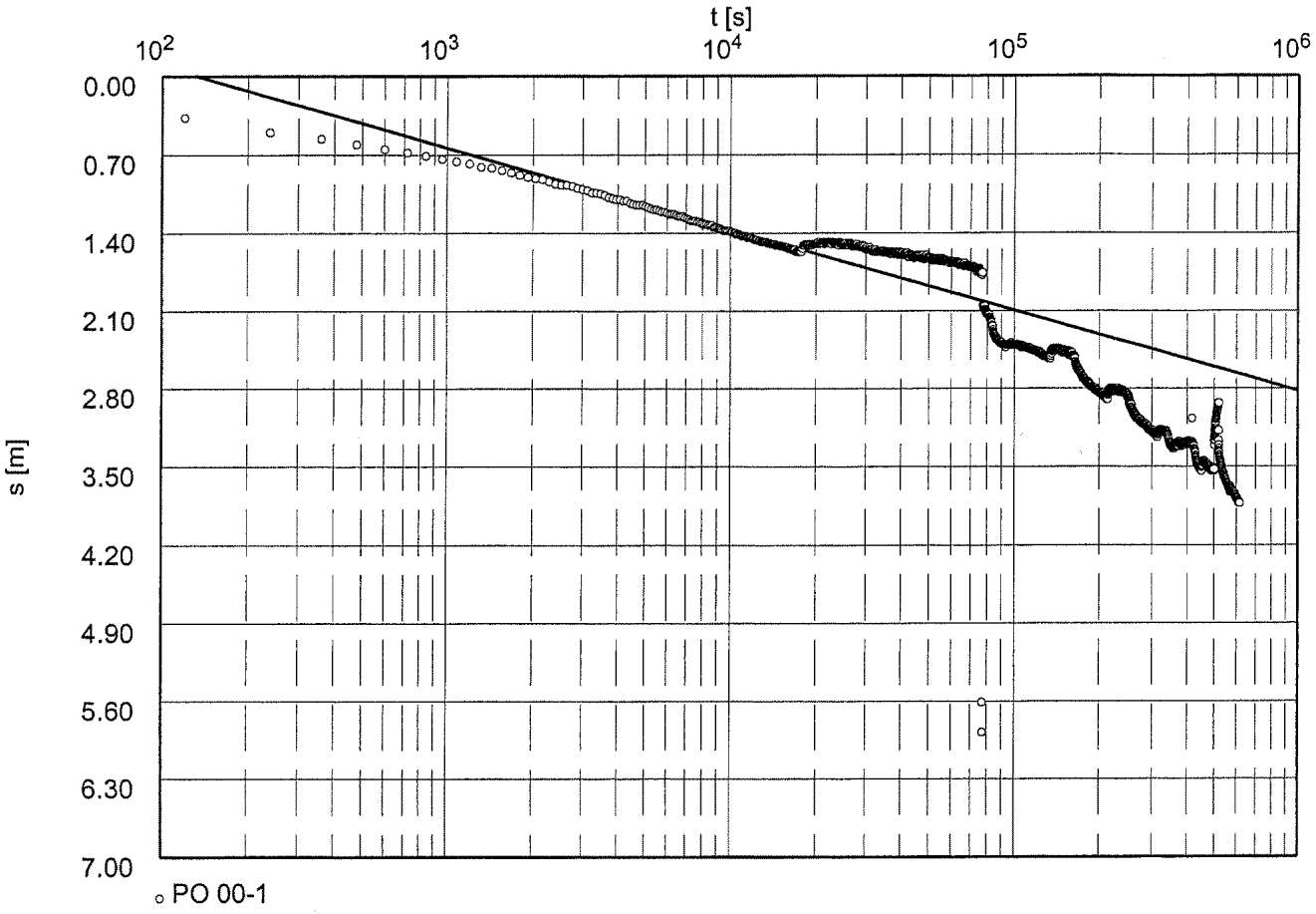
Meas. No.	Time seconds	Field Meas. meters	Drawdown/up meters	Line Fit To LN(Hi/H-HO)	Regression To LN(Hi/H-HO)
36)	35,00	3,77	0,05	-2,4248	-2,5975
37)	36,00	3,77	0,04	-2,5302	-2,6685
38)	37,00	3,76	0,03	-2,7815	-2,7396
39)	38,00	3,76	0,03	-2,7815	-2,8106
40)	39,00	3,76	0,03	-2,7815	-2,8817
41)	40,00	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

J-2

ESSAI DE POMPAGE

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	

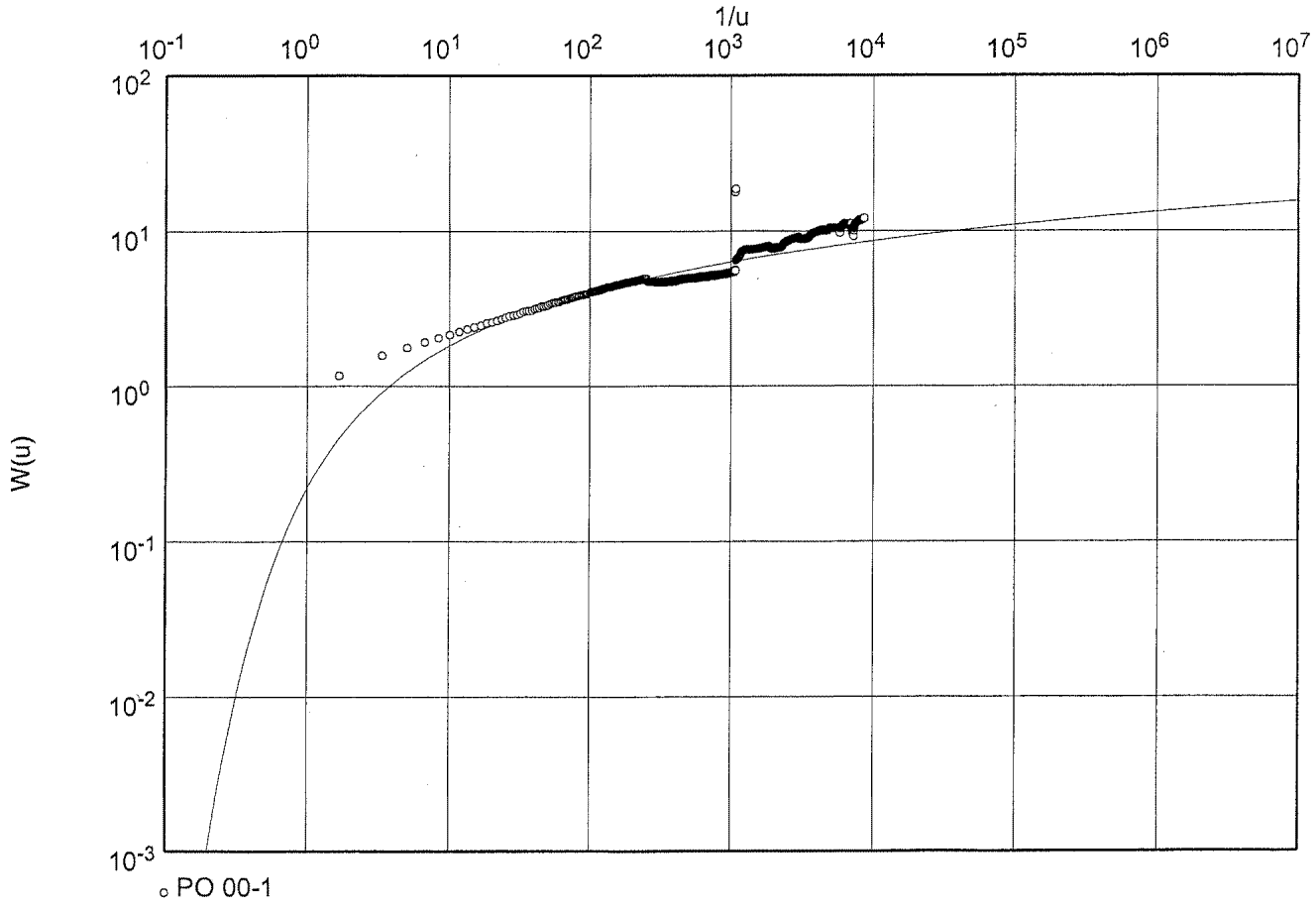


Transmissivity [m²/s]: 1.08×10^{-2}

Storativity: 1.42×10^{-2}

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	



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

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]	
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
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	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

Project: 001-7077

Evaluated by: M. Chiasson

Pumping Test No. 1 | Test conducted on: 00-11-01

P-2 | PO 00-1

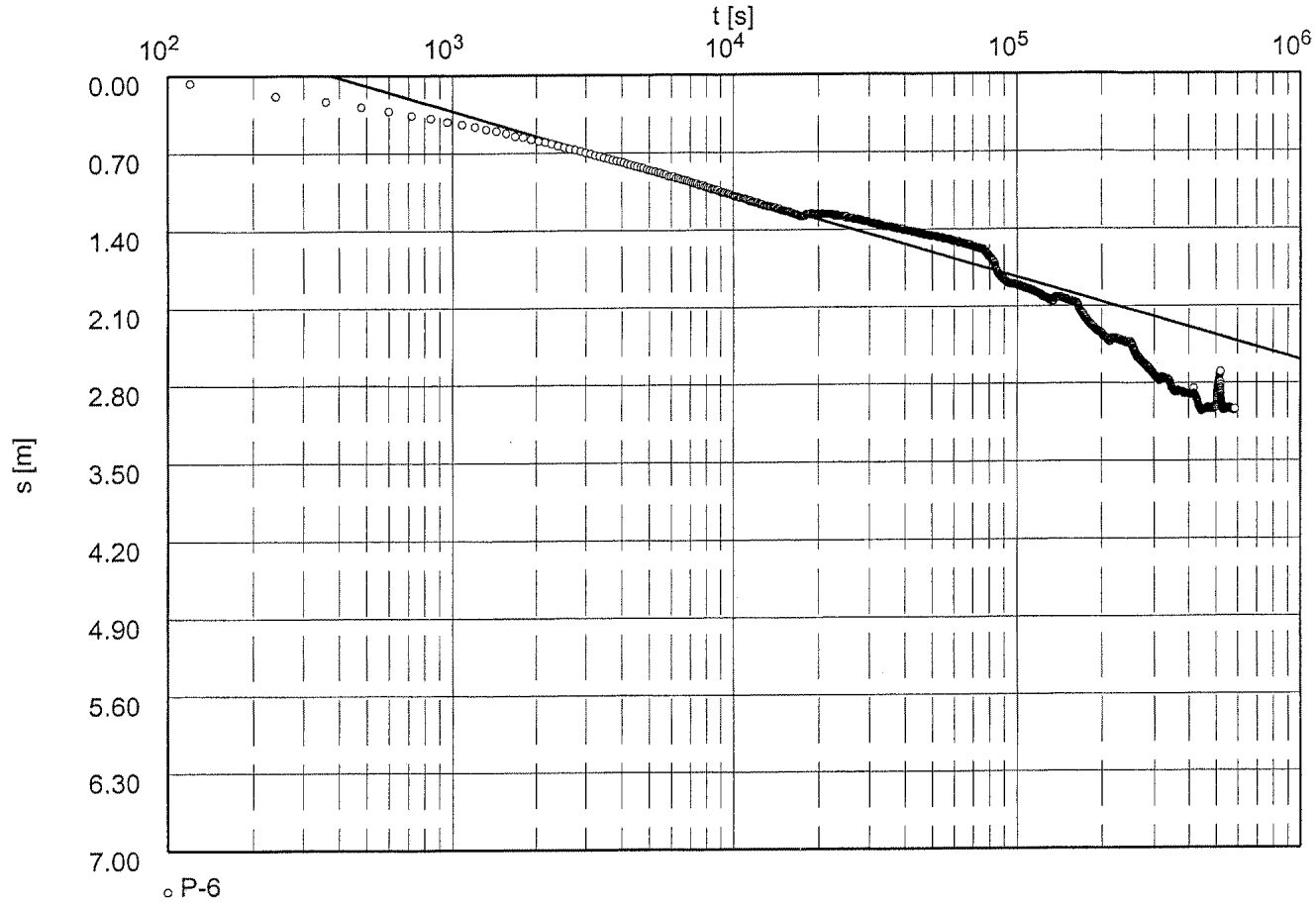
Discharge 43.02 l/s | Distance from the pumping well 15.0000 m

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

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	



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

Project: 001-7077

Evaluated by: M. Chiasson

Pumping Test No. 1 | Test conducted on: 00-11-01

P-2 | P-6

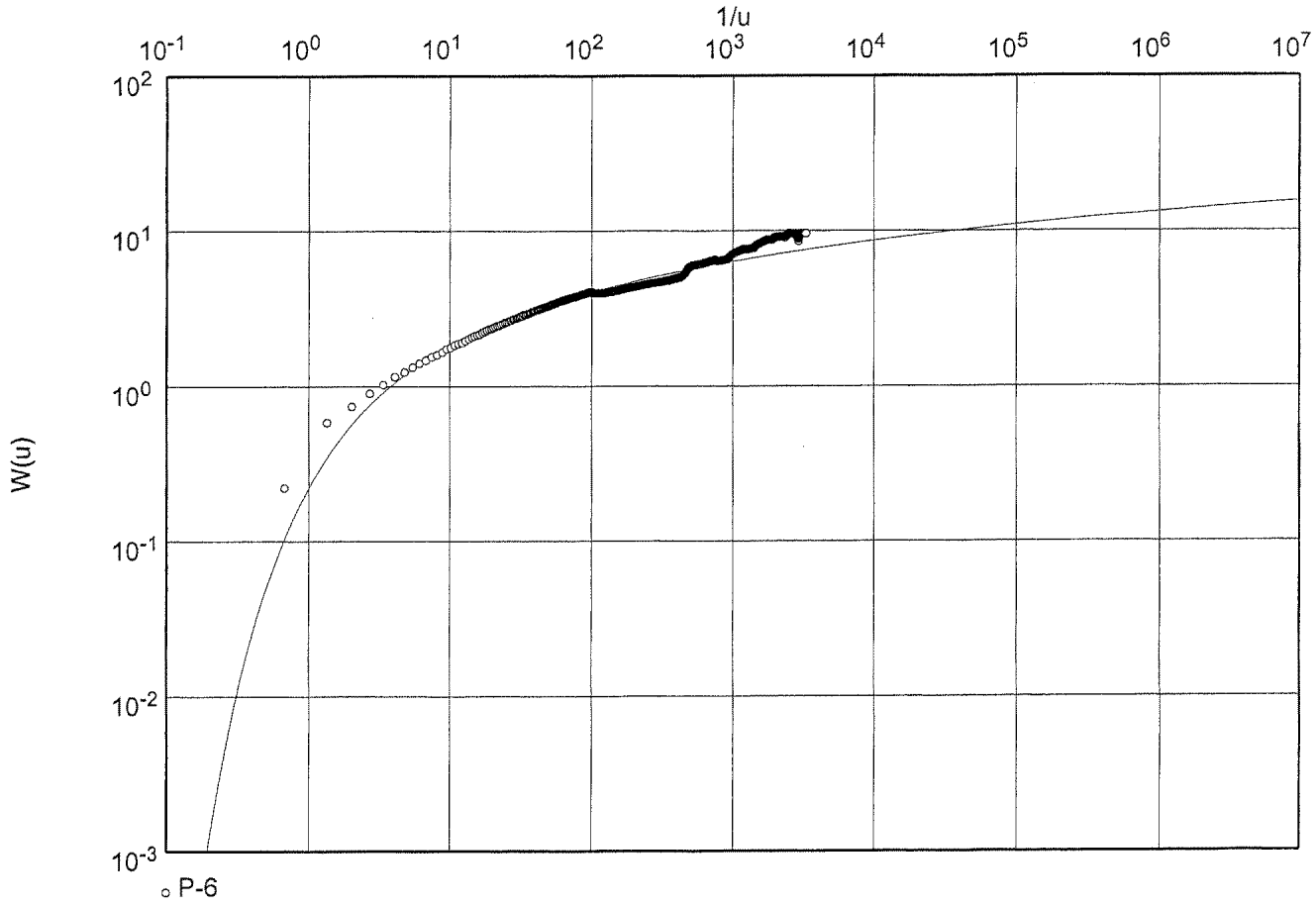
Discharge 43.02 l/s | Distance from the pumping well 133.0000 m

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	



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

Project: 001-7077

Evaluated by: M. Chiasson

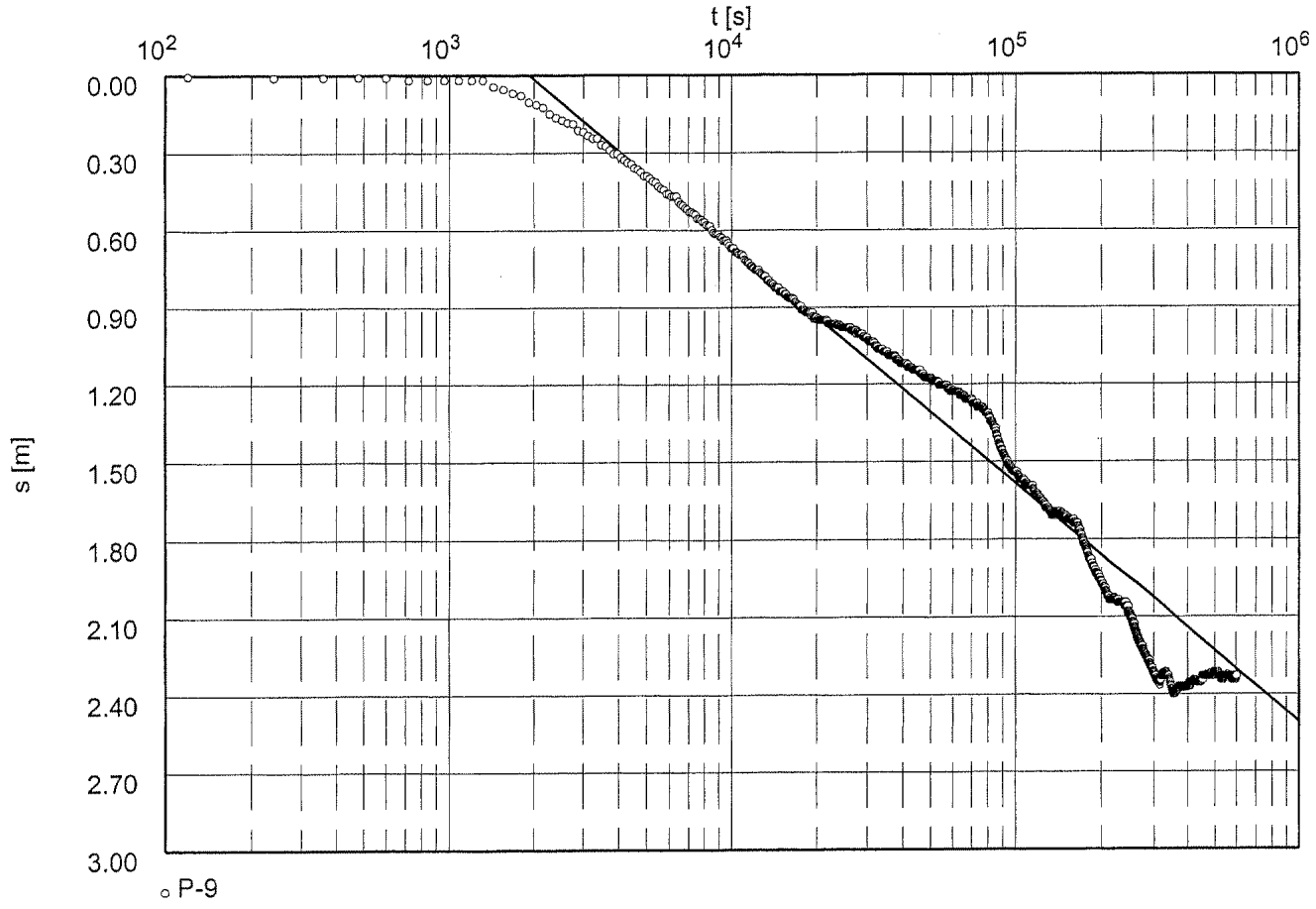
Pumping Test No. 1	Test conducted on: 00-11-01
P-2	P-6
Discharge 43.02 l/s	Distance from the pumping well 133.0000 m

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	



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

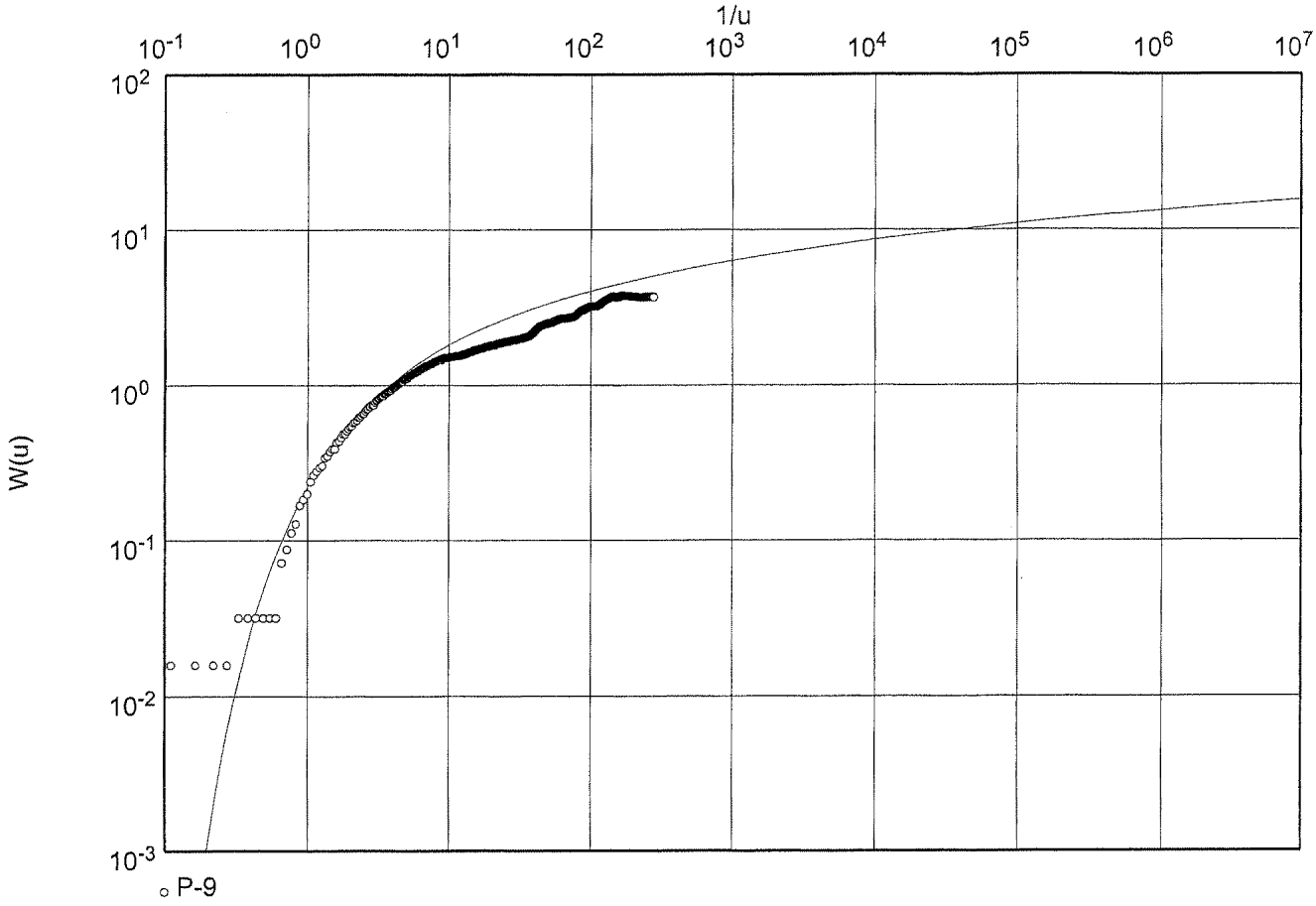
Pumping Test No. 1	Test conducted on: 00-11-01
P-2	P-9
Discharge 43.02 l/s	Distance from the pumping well 370.0000 m

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

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	



Transmissivity [m²/s]: 5.42×10^{-3}

Storativity: 3.43×10^{-4}

Waterloo Hydrogeologic
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Pumping test analysis
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Evaluated by: M. Chiasson

Pumping Test No. 1 | Test conducted on: 00-11-01

P-2 | P-9

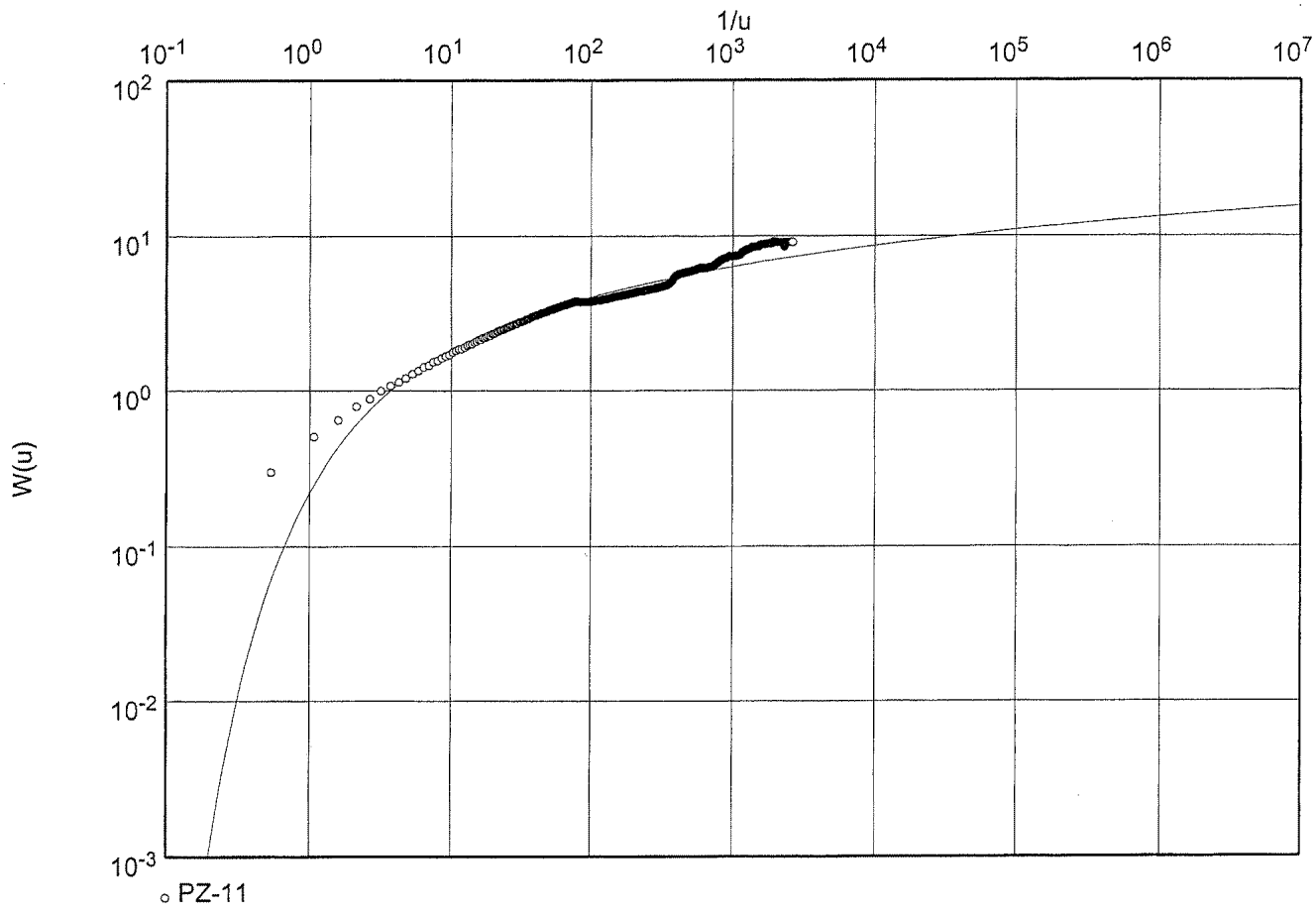
Discharge 43.02 l/s | Distance from the pumping well 370.0000 m

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	



Transmissivity [m²/s]: 1.08×10^{-2}

Waterloo Hydrogeologic
180 Columbia St. W.
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Pumping test analysis
Theis analysis method
Confined aquifer

Date: 21.01.2002

Project: 001-7077

Evaluated by: M. Chiasson

Pumping Test No. 1 | Test conducted on: 00-11-01

P-2 | PZ-11

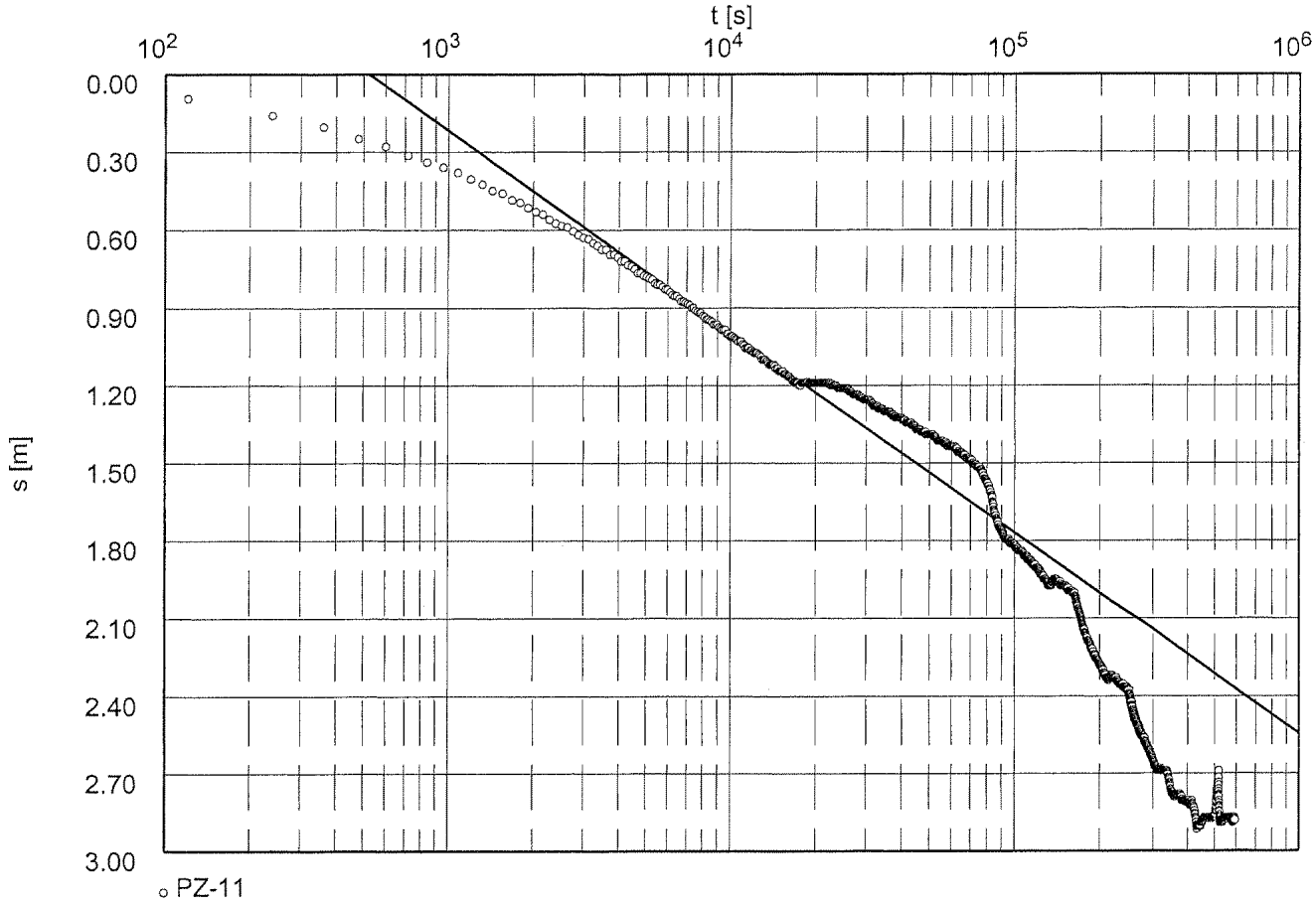
Discharge 43.02 l/s | Distance from the pumping well 250.0000 m

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	



Transmissivity [m²/s]: 1.01×10^{-2}

Waterloo Hydrogeologic
180 Columbia St. W.
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Pumping test analysis
Time-Drawdown-method after
COOPER & JACOB
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