

## **APENDICE D. TABLAS Y GRÁFICOS DE USO MAS FRECUENTE**

***Tabla de la función de pozo  $W(u)$  para acuífero confinado***

***Tabla de la función de pozo  $W(u, r/B)$  para acuífero semiconfinado***

***Tabla de caudales de aforo para diferentes relaciones de tuberías y diafragmas***

***Gráfico de caudales de aforo para diferentes relaciones de tuberías y diafragmas***

***Partes de bombeo y gráficos de interpretación***

## **APÉNDICE D**

### **TABLAS Y GRAFICOS DE USO MAS FRECUENTE**

TABLAS DE LA FUNCION DE POZO  $W(u)$  PARA ACUIFERO CONFINADO

	$k \times 10^{-15}$	$k \times 10^{-14}$	$k \times 10^{-13}$	$k \times 10^{-12}$	$k \times 10^{-11}$	$k \times 10^{-10}$	$k \times 10^{-9}$	$k \times 10^{-8}$
1,0 ..	33,9616	31,6590	29,3564	27,0538	24,7512	22,4486	20,1460	17,8435
1,1 ..	33,8662	31,5637	29,2611	26,9585	24,6559	22,5533	20,0507	17,7482
1,2 ..	33,7792	31,4767	29,1741	26,8715	24,5689	22,2663	19,9637	17,6611
1,3 ..	33,6992	31,3960	29,0940	26,7914	24,4889	22,1863	19,8837	17,5811
1,4 ..	33,6251	31,3225	29,0199	26,7173	24,4247	22,1122	19,8096	17,5070
1,5 ..	33,5561	31,2535	28,9509	26,6483	24,3458	22,0432	19,7406	17,4380
1,6 ..	33,4916	31,1890	28,8864	26,5838	24,2812	21,9786	19,6760	17,3735
1,7 ..	33,4309	31,1283	28,8258	26,5232	24,2206	21,9180	19,6154	17,3128
1,8 ..	33,3738	31,0712	28,7686	26,4660	24,1634	21,8608	19,5583	17,2557
1,9 ..	33,3197	31,0171	28,7145	26,4119	24,1094	21,8068	19,5042	17,2016
2,0 ..	33,2684	30,9658	28,6632	26,3607	24,0581	21,7555	19,4529	17,1503
2,1 ..	33,2196	30,9170	28,6145	26,3119	24,0093	21,7067	19,4041	17,1015
2,2 ..	33,1731	30,8705	28,5679	26,2653	23,9628	21,6602	19,3576	17,0550
2,3 ..	33,1286	30,8261	28,5235	26,2209	23,9183	21,6157	19,3131	17,0106
2,4 ..	33,0861	30,7835	28,4809	26,1783	23,8758	21,5732	19,2706	16,9680
2,5 ..	33,0453	30,7427	28,4401	26,1375	23,8349	21,5323	19,2298	16,9272
2,6 ..	33,0060	30,7035	28,4009	26,0983	23,7957	21,4931	19,1905	16,8880
2,7 ..	32,9683	30,6657	28,3631	26,0606	23,7580	21,4554	19,1528	16,8502
2,8 ..	32,9319	30,6294	28,3268	26,0242	23,7216	21,4190	19,1164	16,8138
2,9 ..	32,8968	30,5943	28,2917	25,9891	23,6865	21,3839	19,0813	16,7788
3,0 ..	32,8629	30,5604	28,2578	25,9552	23,6526	21,3500	19,0474	16,7449
3,1 ..	32,8302	30,5276	28,2250	25,9224	23,6198	21,3172	19,0146	16,7121
3,2 ..	32,7984	30,4958	28,1932	25,8907	23,5881	21,2855	18,9829	16,6803
3,3 ..	32,7676	30,4651	28,1625	25,8599	23,5573	21,2547	18,9521	16,6495
3,4 ..	32,7378	30,4352	28,1326	25,8300	23,5274	21,2249	18,9223	16,6197
3,5 ..	32,7088	30,4062	28,1036	25,8010	23,4985	21,1959	18,8933	16,5907
3,6 ..	32,6806	30,3780	28,0755	25,7729	23,4703	21,1677	18,8651	16,5625
3,7 ..	32,6532	30,3506	28,0481	25,7455	23,4429	21,1403	18,8377	16,5351
3,8 ..	32,6266	30,3240	28,0214	25,7188	23,4162	21,1136	18,8110	16,5085
3,9 ..	32,6006	30,2980	27,9954	25,6928	23,3902	21,0877	18,7851	16,4825
4,0 ..	32,5753	30,2727	27,9701	25,6675	23,3649	21,0623	18,7598	16,4572
4,1 ..	32,5506	30,2480	27,9454	25,6428	23,3402	21,0376	18,7351	16,4325
4,2 ..	32,5265	30,2239	27,9213	25,6187	23,3161	21,0136	18,7110	16,4084
4,3 ..	32,5029	30,2004	27,8978	25,5952	23,2926	20,9900	18,6874	16,3848
4,4 ..	32,4800	30,1774	27,8748	25,5722	23,2696	20,9690	18,6644	16,3619
4,5 ..	32,4575	30,1549	27,8523	25,5497	23,2471	20,9446	18,6420	16,3394
4,6 ..	32,4355	30,1329	27,8303	25,5277	23,2252	20,9226	18,6200	16,3174
4,7 ..	32,4140	30,1114	27,8088	25,5062	23,2037	20,9011	18,5985	16,2959
4,8 ..	32,3929	30,0904	27,7878	25,4852	23,1826	20,8800	18,5774	16,2748
4,9 ..	32,3723	30,0697	27,7672	25,4646	23,1620	20,8594	18,5568	16,2542
5,0 ..	32,3521	30,0495	27,7470	25,4444	23,1418	20,8392	18,5366	16,2340
5,1 ..	32,3323	30,0297	27,7271	25,4246	23,1220	20,8194	18,5168	16,2142
5,2 ..	32,3129	30,0103	27,7077	25,4051	23,1026	20,8000	18,4974	16,1948

Para la gama de valores de  $u$  que interesen, elijase la columna correspondiente  $u = k \times$  potencia de 10, y en la misma fila de los valores de  $k$  (que aparecen en la primera columna) se encontrarán, en la misma columna elegida, los valores correspondientes de la función de pozo  $W = W(u)$ .

TABLAS DE LA FUNCION DE POZO  $W(u)$  PARA ACUIFERO CONFINADO

(continuación)

	$k \times 10^{-7}$	$k - 10^{-6}$	$k \times 10^{-5}$	$k \times 10^{-4}$	$k \times 10^{-3}$	$k \times 10^{-2}$	$k \times 10^{-1}$	k
1,0 ..	15,5409	13,2383	10,9357	8,6332	6,3315	4,0379	1,8229	0,2194
1,1 ..	15,4456	13,1430	10,8404	8,5379	6,2363	3,9436	1,7371	,1860
1,2 ..	15,3586	13,0560	10,7534	8,4509	6,1494	3,8576	1,6595	,1584
1,3 ..	15,2785	12,9759	10,6734	8,3709	6,0695	3,7785	1,5889	,1355
1,4 ..	15,2044	12,9018	10,5993	8,2968	5,9955	3,7054	1,5241	,1162
1,5 ..	15,1354	12,8328	10,5303	8,2278	5,9266	3,6374	1,4645	,1000
1,6 ..	15,0709	12,7683	10,4657	8,1634	5,8621	3,5739	1,4092	,08631
1,7 ..	15,0103	12,7077	10,4051	8,1027	5,8016	3,5143	1,3578	,07465
1,8 ..	14,9531	12,6505	10,3479	8,0455	5,7446	3,4581	1,3098	,06471
1,9 ..	14,8990	12,5964	10,2939	7,9915	5,6906	3,4050	1,2649	,05620
2,0 ..	14,8477	12,5451	10,2426	7,9402	5,6394	3,3547	1,2227	,04890
2,1 ..	14,7989	12,4964	10,1938	7,8914	5,5907	3,3069	1,1829	,04261
2,2 ..	14,7524	12,4498	10,1473	7,8449	5,5443	3,2614	1,1454	,03719
2,3 ..	14,7080	12,4054	10,1028	7,8004	5,4999	3,2179	1,1099	,03250
2,4 ..	14,6654	12,3628	10,0603	7,7579	5,4575	3,1763	1,0762	,02844
2,5 ..	14,6246	12,3220	10,0194	7,7172	5,4167	3,1365	1,0443	,02491
2,6 ..	14,5854	12,2828	9,9802	7,6779	5,3776	3,0983	1,0139	,02185
2,7 ..	14,5476	12,2450	9,9425	7,6401	5,3400	3,0615	0,9849	,01918
2,8 ..	14,5113	12,2087	9,9061	7,6038	5,3037	3,0261	,9573	,01686
2,9 ..	14,4762	12,1736	9,8710	7,5687	5,2687	2,9920	,9309	,01482
3,0 ..	14,4423	12,1397	9,8371	7,5348	5,2349	2,9591	,9057	,01305
3,1 ..	14,4095	12,1069	9,8043	7,5020	5,2022	2,9273	,8815	,01149
3,2 ..	14,3777	12,0751	9,7726	7,4703	5,1706	2,8965	,8583	,01013
3,3 ..	14,3470	12,0444	9,7418	7,4395	5,1399	2,8668	,8361	,008939
3,4 ..	14,3171	12,0145	9,7120	7,4097	5,1102	2,8379	,8147	,007891
3,5 ..	14,2881	11,9855	9,6830	7,3807	5,0813	2,8099	,7941	,006970
3,6 ..	14,2599	11,9574	9,6548	7,3526	5,0532	2,7827	,7745	,006160
3,7 ..	14,2325	11,9300	9,6274	7,3252	5,0259	2,7563	,7554	,005448
3,8 ..	14,2059	11,9033	9,6007	7,2985	4,9993	2,7306	,7371	,004820
3,9 ..	14,1799	11,8773	9,5748	7,2725	4,9735	2,7056	,7194	,004267
4,0 ..	14,1546	11,8520	9,5495	7,2472	4,9482	2,6813	,7024	,003779
4,1 ..	14,1299	11,8273	9,5248	7,2225	4,9236	2,6576	,6859	,003349
4,2 ..	14,1058	11,8032	9,5007	7,1985	4,8997	2,6344	,6700	,002969
4,3 ..	14,0823	11,7797	9,4771	7,1749	4,8762	2,6119	,6546	,002633
4,4 ..	14,0593	11,7567	9,4541	7,1520	4,8533	2,5899	,6397	,002336
4,5 ..	14,0368	11,7342	9,4317	7,1295	4,8310	2,5684	,6253	,002073
4,6 ..	14,0148	11,7122	9,4097	7,1075	4,8091	2,5474	,6114	,001841
4,7 ..	13,9933	11,6907	9,3882	7,0860	4,7877	2,5268	,5979	,001635
4,8 ..	13,9723	11,6697	9,3671	7,0650	4,7667	2,5068	,5848	,001453
4,9 ..	13,9516	11,6491	9,3465	7,0444	4,7462	2,4871	,5721	,001291
5,0 ..	13,9314	11,6289	9,3263	7,0242	4,7261	2,4679	,5598	,001148
5,1 ..	13,9116	11,6091	9,3065	7,0044	4,7064	2,4491	,5478	,001021
5,2 ..	13,8922	11,5896	9,2871	6,9850	4,6871	2,4306	,5362	,0009086

TABLAS DE LA FUNCION DE POZO  $W(u)$  PARA ACUIFERO CONFINADO

(Continuación)

	$k \times 10^{-15}$	$k \times 10^{-14}$	$k \times 10^{-13}$	$k \times 10^{-12}$	$k \times 10^{-11}$	$k \times 10^{-10}$	$k \times 10^{-9}$	$k \times 10^{-8}$
5,3 ..	32,2939	29,9913	27,6887	25,3861	23,0835	20,7890	18,4783	16,1758
5,4 ..	32,2752	29,9726	27,6700	25,3674	23,0648	20,7622	18,4596	16,1571
5,5 ..	32,2568	29,9542	27,6516	25,3491	23,0465	20,7439	18,4413	16,1387
5,6 ..	32,2388*	29,9362	27,6336	25,3310	23,0285	20,7259	18,4233	16,1207
5,7 ..	32,2211	29,9185	27,6159	25,3133	23,0108	20,7082	18,4056	16,1030
5,8 ..	32,2037	29,9011	27,5985	25,2959	22,9934	20,6908	18,3882	16,0856
5,9 ..	32,1866	29,8840	27,5814	25,2789	22,9763	20,6737	18,3711	16,0685
6,0 ..	32,1698	29,8672	27,5646	25,2620	22,9595	20,6569	18,3543	16,0517
6,1 ..	32,1533	29,8507	27,5481	25,2455	22,9429	20,6403	18,3378	16,0352
6,2 ..	32,1370	29,8344	27,5318	25,2293	22,9267	20,6241	18,3215	16,0189
6,3 ..	32,1210	29,8184	27,5158	25,2133	22,9107	20,6081	18,3055	16,0029
6,4 ..	32,1053	29,8027	27,5001	25,1975	22,8949	20,5923	18,2898	15,9872
6,5 ..	32,0898	29,7872	27,4846	25,1820	22,8794	20,5768	18,2742	15,9717
6,6 ..	32,0745	29,7719	27,4693	25,1667	22,8641	20,5616	18,2590	15,9564
6,7 ..	32,0595	29,7569	27,4543	25,1517	22,8491	20,5465	18,2439	15,9414
6,8 ..	32,0446	29,7421	27,4395	25,1369	22,8343	20,5317	18,2291	15,9265
6,9 ..	32,0300	29,7275	27,4249	25,1223	22,8197	20,5171	18,2145	15,9119
7,0 ..	32,0156	29,7131	27,4105	25,1079	22,8053	20,5027	18,2001	15,8976
7,1 ..	32,0015	29,6989	27,3963	25,0937	22,7911	20,4885	18,1860	15,8834
7,2 ..	31,9875	29,6849	27,3823	25,0797	22,7771	20,4746	18,1720	15,8694
7,3 ..	31,9737	29,6711	27,3685	25,0659	22,7633	20,4608	18,1582	15,8556
7,4 ..	31,9601	29,6575	27,3549	25,0523	22,7497	20,4472	18,1446	15,8420
7,5 ..	31,9467	29,6441	27,3415	25,0389	22,7363	20,4337	18,1311	15,8286
7,6 ..	31,9334	29,6308	27,3282	25,0257	22,7231	20,4205	18,1179	15,8153
7,7 ..	31,9203	29,6178	27,3152	25,0126	22,7100	20,4074	18,1048	15,8022
7,8 ..	31,9074	29,6048	27,3023	24,9997	22,6971	20,3945	18,0919	15,7893
7,9 ..	31,8947	29,5921	27,2895	24,9869	22,6844	20,3818	18,0792	15,7766
8,0 ..	31,8821	29,5795	27,2769	24,9744	22,6718	20,3692	18,0666	15,7640
8,1 ..	31,8697	29,5671	27,2645	24,9619	22,6594	20,3568	18,0542	15,7516
8,2 ..	31,8574	29,5548	27,2523	24,9497	22,6471	20,3445	18,0419	15,7391
8,3 ..	31,8453	29,5427	27,2401	24,9375	22,6350	20,3324	18,0298	15,7272
8,4 ..	31,8333	29,5307	27,2282	24,9256	22,6230	20,3204	18,0178	15,7152
8,5 ..	31,8215	29,5189	27,2163	24,9137	22,6112	20,3086	18,0060	15,7034
8,6 ..	31,8098	29,5072	27,2046	24,9020	22,5995	20,2969	17,9943	15,6917
8,7 ..	31,7982	29,4957	27,1931	24,8905	22,5879	20,2853	17,9827	15,6801
8,8 ..	31,7868	29,4842	27,1816	24,8790	22,5765	20,2739	17,9713	15,6687
8,9 ..	31,7755	29,4729	27,1703	24,8678	22,5652	20,2626	17,9600	15,6574
9,0 ..	31,7643	29,4618	27,1592	24,8566	22,5540	20,2514	17,9488	15,6462
9,1 ..	31,7533	29,4507	27,1481	24,8455	22,5429	20,2404	17,9378	15,6352
9,2 ..	31,7424	29,4398	27,1372	24,8346	22,5320	20,2294	17,9268	15,6243
9,3 ..	31,7315	29,4290	27,1264	24,8238	22,5212	20,2186	17,9160	15,6135
9,4 ..	31,7208	29,4183	27,1157	24,8131	22,5105	20,2079	17,9053	15,6028
9,5 ..	31,7103	29,4077	27,1051	24,8025	22,4999	20,1973	17,8948	15,5922
9,6 ..	31,6998	29,3972	27,0946	24,7920	22,4895	20,1869	17,8843	15,5817
9,7 ..	31,6894	29,3868	27,0843	24,7817	22,4791	20,1765	17,8739	15,5713
9,8 ..	31,6792	29,3766	27,0740	24,7714	22,4688	20,1663	17,8637	15,5611
9,9 ..	31,6690	29,3664	27,0639	24,7613	22,4587	20,1561	17,8535	15,5509

TABLAS DE LA FUNCION DE POZO  $W(u)$  PARA ACUIFERO CONFINADO

(Continuación)

	$k \times 10^{-7}$	$k \times 10^{-6}$	$k \times 10^{-5}$	$k \times 10^{-4}$	$k \times 10^{-3}$	$k \times 10^{-2}$	$k \times 10^{-1}$	k
5.3..	13,8732	11,5706	9,2681	6,9659	4,6681	2,4126	.5250	.0008086
5.4..	13,8545	11,5519	9,2494	6,9473	4,6495	2,3948	.5140	.0007198
5.5..	13,8361	11,5336	9,2310	6,9289	4,6313	2,3775	.5034	.0006409
5.6..	13,8181	11,5155	9,2130	6,9109	4,6134	2,3604	.4930	.0005708
5.7..	13,8004	11,4978	9,1953	6,8932	4,5958	2,3437	.4830	.0005085
5.8..	13,7830	11,4804	9,1779	6,8758	4,5785	2,3273	.4732	.0004532
5.9..	13,7659	11,4633	9,1608	6,8588	4,5615	2,3111	.4637	.0004039
6.0..	13,7491	11,4465	9,1440	6,8420	4,5448	2,2953	.4544	.0003601
6.1..	13,7326	11,4300	9,1275	6,8254	4,5283	2,2797	.4454	.0003211
6.2..	13,7163	11,4138	9,1112	6,8092	4,5122	2,2645	.4366	.0002864
6.3..	13,7003	11,3978	9,0952	6,7932	4,4963	2,2494	.4280	.0002555
6.4..	13,6846	11,3820	9,0795	6,7775	4,4806	2,2346	.4197	.0002279
6.5..	13,6691	11,3665	9,0640	6,7620	4,4652	2,2201	.4115	.0002034
6.6..	13,6538	11,3512	9,0487	6,7467	4,4501	2,2058	.4036	.0001816
6.7..	13,6388	11,3362	9,0337	6,7317	4,4351	2,1917	.3959	.0001621
6.8..	13,6240	11,3214	9,0189	6,7169	4,4204	2,1779	.3888	.0001448
6.9..	13,6094	11,3068	9,0043	6,7023	4,4059	2,1643	.3810	.0001293
7.0..	13,5950	11,2924	8,9899	6,6879	4,3916	2,1508	.3738	.0001155
7.1..	13,5808	11,2782	8,9757	6,6737	4,3775	2,1376	.3668	.0001032
7.2..	13,5668	11,2642	8,9717	6,6598	4,3636	2,1246	.3599	.00009219
7.3..	13,5530	11,2504	8,9479	6,6460	4,3500	2,1118	.3532	.00008239
7.4..	13,5394	11,2368	8,9343	6,6324	4,3364	2,0991	.3467	.00007364
7.5..	13,5260	11,2234	8,9209	6,6190	4,3231	2,0867	.3403	.00006583
7.6..	13,5127	11,2102	8,9076	6,6057	4,3100	2,0744	.3341	.00005886
7.7..	13,4997	11,1971	8,8946	6,5927	4,2970	2,0623	.3280	.00005263
7.8..	13,4808	11,1842	8,8817	6,5798	4,2842	2,0503	.3221	.00004707
7.9..	13,4740	11,1714	8,8689	6,5671	4,2716	2,0386	.3163	.00004210
8.0..	13,4614	11,1589	8,8563	6,5545	4,2591	2,0269	.3106	.00003767
8.1..	13,4490	11,1464	8,8439	6,5421	4,2468	2,0155	.3050	.00003370
8.2..	13,4367	11,1342	8,8317	6,5298	4,2346	2,0042	.2996	.00003015
8.3..	13,4246	11,1220	8,8195	6,5177	4,2226	1,9930	.2943	.00002699
8.4..	13,4126	11,1101	8,8076	6,5057	4,2107	1,9820	.2891	.00002415
8.5..	13,4008	11,0982	8,7957	6,4939	4,1990	1,9711	.2840	.00002162
8.6..	13,3891	11,0865	8,7840	6,4822	4,1874	1,9604	.2790	.00001936
8.7..	13,3776	11,0750	8,7725	6,4707	4,1759	1,9498	.2742	.00001733
8.8..	13,3661	11,0635	9,7610	6,4592	4,1646	1,9393	.2694	.00001552
8.9..	13,3548	11,0523	8,7497	6,4480	4,1534	1,9290	.2647	.00001390
9.0..	13,3437	11,0411	8,7386	6,4368	4,1423	1,9187	.2602	.00001245
9.1..	13,3326	11,0300	8,7275	6,4258	4,1313	1,9087	.2557	.00001115
9.2..	13,3217	11,0191	8,7166	6,4148	4,1205	1,8987	.2513	.000009988
9.3..	13,3109	11,0083	8,7058	6,4040	4,1098	1,8888	.2470	.000008948
9.4..	13,3002	10,9976	8,6951	6,3934	4,0992	1,8791	.2429	.000008018
9.5..	13,2896	10,9870	8,6845	6,3828	4,0887	1,8695	.2387	.000007185
9.6..	13,2791	10,9765	8,6740	6,3723	4,0784	1,8599	.2347	.000006439
9.7..	13,2688	10,9662	8,6637	6,3620	4,0681	1,8505	.2308	.000005771
9.8..	13,2585	10,9559	8,6534	6,3517	4,0579	1,8412	.2269	.000005173
9.9..	13,2483	10,9458	8,6433	6,3416	4,0479	1,8320	.2231	.000004637

TABLAS DE LA FUNCION DE POZO EN ACUIFERO SEMICONFINADO  $W(u, r/B)$

$u$	$r/B$	0	0,001	0,002	0,003	0,004	0,005	0,006
0	$\infty$	14,0474	12,6611	11,8502	11,2748	10,8286	10,4640	
0,00001	13,2383	13,0031	12,4417	11,8153	11,2711	10,8283	10,4640	
0,00002	12,5451	12,4240	12,1013	11,6716	11,2259	10,8174	10,4619	
0,00003	12,1397	12,0581	11,8322	11,5098	11,1462	10,7849	10,4509	
0,00004	11,8520	11,7905	11,6168	11,3597	11,0555	10,7374	10,4291	
0,00005	11,6289	11,5795	11,4384	11,2248	10,9642	10,6822	10,3993	
0,00006	11,4465	11,4503	11,2866	11,1040	10,8764	10,6240	10,3640	
0,00007	11,2924	11,2570	11,1545	10,9951	10,7933	10,5652	10,3255	
0,00008	11,1589	11,1279	11,0377	10,8962	10,7151	10,5072	10,2854	
0,00009	11,0411	11,0135	10,8059	10,8059	10,6416	10,4508	10,2446	
0,00010	10,9357	10,9109	10,6382	10,7228	10,5725	10,3963	10,2038	
0,0002	10,2426	10,2301	10,1932	10,1332	10,0522	9,9530	9,8386	
0,0003	9,8371	9,8288	9,8041	9,7635	9,7401	9,6392	9,5583	
0,0004	9,5495	9,5432	9,5246	9,4940	9,4520	9,3992	9,3366	
0,0005	9,3263	9,3213	9,3064	9,2818	9,2480	9,2052	9,1542	
0,0006	9,1440	9,1398	9,1274	9,1069	9,0785	9,0426	8,9996	
0,0007	8,9899	8,9863	8,9756	8,9580	8,9336	8,9027	8,8654	
0,0008	8,8563	8,8532	8,8439	8,8284	8,8070	8,7798	8,7470	
0,0009	8,7386	8,7358	8,7275	8,7138	8,6947	8,6703	8,6411	
0,001	8,6332	8,6308	8,6233	8,6109	8,5938	8,5717	8,5453	
0,002	7,9402	7,9390	7,9352	7,9290	7,9203	7,9092	7,8958	
0,003	7,5348	7,5340	7,5315	7,5274	7,5216	7,5141	7,5051	
0,004	7,2472	7,2466	7,2447	7,2416	7,2373	7,2317	7,2249	
0,005	7,0242	7,0237	7,0222	7,0197	7,0163	7,0118	7,0063	
0,006	6,8420	6,8416	6,8403	6,8383	6,8353	6,8316	6,8271	
0,007	6,6879	6,6876	6,6865	6,6848	6,6823	6,6790	6,6752	
0,008	6,5545	6,5542	6,5532	6,5517	6,5495	6,5467	6,5433	
0,009	6,4368	6,4365	6,4357	6,4344	6,4324	6,4299	6,4269	
0,001	6,3315	6,3313	6,3305	6,3293	6,3276	6,3253	6,3226	
0,002	5,6394	5,6393	5,6389	5,6383	5,6374	5,6363	5,6350	
0,003	5,2349	5,2348	5,2346	5,2342	5,2336	5,2329	5,2320	
0,004	4,9482	4,9482	4,9480	4,9477	4,9472	4,9467	4,9460	
0,005	4,7261	4,7260	4,7259	4,7256	4,7253	4,7249	4,7244	
0,006	4,5448	4,5448	4,5447	4,5444	4,5441	4,5438	4,5433	
0,007	4,3916	4,3916	4,3915	4,3913	4,3910	4,3908	4,3904	
0,008	4,2591	4,2590	4,2590	4,2588	4,2586	4,2583	4,2580	
0,009	4,1423	4,1423	4,1422	4,1420	4,1418	4,1416	4,1413	
0,01	4,0379	4,0378	4,0377	4,0375	4,0373	4,0356	4,0371	
0,02	3,3547	3,3547	3,3547	3,3546	3,3545	3,3544	3,3543	
0,03	2,9591	2,9591	2,9591	2,9590	2,9590	2,9589	2,9589	
0,04	2,6813	2,6812	2,6812	2,6812	2,6812	2,6811	2,6810	
0,05	2,4679	2,4679	2,4679	2,4679	2,4678	2,4678	2,4678	
0,06	2,2953	2,2953	2,2953	2,2953	2,2952	2,2952	2,2952	
0,07	2,1508	2,1508	2,1508	2,1508	2,1508	2,1508	2,1507	
0,08	2,0269	2,0269	2,0269	2,0269	2,0269	2,0269	2,0269	
0,09	1,9187	1,9187	1,9187	1,9187	1,9187	1,9187	1,9187	
0,1	1,8229	1,8229	1,8229	1,8229	1,8229	1,8229	1,8229	
0,2	1,2227	1,2227	1,2227	1,2226	1,2226	1,2226	1,2226	
0,3	0,9057	0,9057	0,9057	0,9057	0,9057	0,9057	0,9057	
0,4	0,7024	0,7024	0,7024	0,7024	0,7024	0,7024	0,7024	
0,5	0,5598	0,5598	0,5598	0,5598	0,5598	0,5598	0,5598	
0,6	0,4544	0,4544	0,4544	0,4544	0,4544	0,4544	0,4544	
0,7	0,3738	0,3738	0,3738	0,3738	0,3738	0,3738	0,3738	
0,8	0,3106	0,3106	0,3106	0,3106	0,3106	0,3106	0,3106	
0,9	0,2602	0,2602	0,2602	0,2602	0,2602	0,2602	0,2602	
1,0	0,2194	0,2194	0,2194	0,2194	0,2194	0,2194	0,2194	
2,0	0,0489	0,0489	0,0489	0,0489	0,0489	0,0489	0,0489	
3,0	0,0130	0,0130	0,0130	0,0130	0,0130	0,0130	0,0130	
4,0	0,0038	0,0038	0,0038	0,0038	0,0038	0,0038	0,0038	
5,0	0,0011	0,0011	0,0011	0,0011	0,0011	0,0011	0,0011	
6,0	0,0004	0,0004	0,0004	0,0004	0,0004	0,0004	0,0004	
7,0	0,0001	0,0001	0,0001	0,0001	0,0001	0,0001	0,0001	
8,0	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	







TABLAS DE LA FUNCION DE POZO EN ACUIFERO SEMICONFINADO  $W(u, r/B)$

		<i>(Continuación)</i>							
u	r/B	0,065	0,07	0,075	0,08	0,085	0,09	0,095	0,10
		0	5,7067	5,5596	5,4228	5,2950	5,1750	5,0620	4,9553
0,000001									
0,000002									
0,000003									
0,000004									
0,000005									
0,000006									
0,000007									
0,000008									
0,000009									
0,00001									
0,00002									
0,00003									
0,00004									
0,00005									
0,00006									
0,00007									
0,00008									
0,00009									
0,0001	5,7067	5,5596	5,5468	5,2950					
0,0002	5,7059	5,5593	5,4227	5,2949	5,1750	5,0620	4,9553		
0,0003	5,6999	5,5562	5,4212	5,2942	5,1747	5,0619	4,9552	4,8541	
0,0004	5,6860	5,5476	5,4160	5,2912	5,1730	5,0610	4,9547	4,8539	
0,0005	5,6648	5,5330	5,4062	5,2848	5,1689	5,0585	4,9532	4,8530	
0,0006	5,6383	5,5134	5,3921	5,2749	5,1621	5,0539	4,9502	4,8510	
0,0007	5,6081	5,4902	5,3745	5,2618	5,1526	5,0471	4,9454	4,8478	
0,0008	5,5755	5,4642	5,3542	5,2461	5,1406	5,0381	4,9388	4,8430	
0,0009	5,5416	5,4364	5,3317	5,2282	5,1266	5,0272	4,9306	4,8368	
0,001	5,5071	5,4075	5,3078	5,2087	5,1109	5,0133	4,9208	4,8292	
0,002	5,1803	5,1170	5,0517	4,9848	4,9166	4,8475	4,7778	4,7079	
0,003	4,9180	4,8722	4,8243	4,7746	4,7234	4,6707	4,6169	4,5622	
0,004	4,7068	4,6710	4,6335	4,5942	4,5535	4,5111	4,4676	4,4230	
0,005	4,5314	4,5022	4,4713	4,4389	4,4050	4,3699	4,3335	4,2960	
0,006	4,3819	4,3573	4,3311	4,3036	4,2747	4,2446	4,2134	4,1812	
0,007	4,2518	4,2305	4,2078	4,1839	4,1588	4,1326	4,1053	4,0771	
0,008	4,1368	4,1180	4,0980	4,0769	4,0547	4,0315	4,0073	3,9822	
0,009	4,0336	4,0169	3,9991	3,9802	3,9603	3,9395	3,9178	3,8952	
0,01	3,9403	3,9252	3,9091	3,8920	3,8741	3,8552	3,8356	3,8150	
0,02	3,3071	3,2997	3,2917	3,2832	3,2742	3,2647	3,2547	3,2442	
0,03	2,9284	2,9235	2,9183	2,9127	2,9069	2,9007	2,8941	2,8873	
0,04	2,6589	2,6553	2,6515	2,6475	2,6432	2,6386	2,6338	2,6288	
0,05	2,4505	2,4478	2,4448	2,4416	2,4383	2,4347	2,4310	2,4271	
0,06	2,2812	2,2790	2,2766	2,2740	2,2713	2,2684	2,2654	2,2622	
0,07	2,1391	2,1372	2,1352	2,1331	2,1308	2,1284	2,1258	2,1232	
0,08	2,0169	2,0153	2,0136	2,0118	2,0099	2,0078	2,0056	2,0034	
0,09	1,9101	1,9087	1,9072	1,9056	1,9040	1,9022	1,9003	1,8983	
0,1	1,8153	1,8141	1,8128	1,8114	1,8099	1,8084	1,8067	1,8050	
0,2	1,2196	1,2192	1,2186	1,2181	1,2175	1,2168	1,2162	1,2155	
0,3	0,9040	0,9038	0,9035	0,9029	0,9025	0,9022	0,9018	0,9018	
0,4	0,7014	0,7012	0,7010	0,7008	0,7006	0,7004	0,7002	0,7000	
0,5	0,5591	0,5590	0,5588	0,5586	0,5584	0,5583	0,5581	0,5581	
0,6	0,4539	0,4538	0,4537	0,4536	0,4525	0,4534	0,4533	0,4532	
0,7	0,3734	0,3733	0,3733	0,3732	0,3731	0,3730	0,3729	0,3729	
0,8	0,3103	0,3103	0,3102	0,3102	0,3101	0,3101	0,3100	0,3100	
0,9	0,2600	0,2599	0,2599	0,2599	0,2598	0,2598	0,2597	0,2597	
1,0	0,2192	0,2192	0,2191	0,2191	0,2191	0,2190	0,2190	0,2190	
2,0	0,0489	0,0489	0,0489	0,0489	0,0489	0,0489	0,0488	0,0488	
3,0	0,0130	0,0130	0,0130	0,0130	0,0130	0,0130	0,0130	0,0130	
4,0	0,0038	0,0038	0,0038	0,0038	0,0038	0,0038	0,0038	0,0038	
5,0	0,0011	0,0011	0,0011	0,0011	0,0011	0,0011	0,0011	0,0011	
6,0	0,0004	0,0004	0,0004	0,0004	0,0004	0,0004	0,0004	0,0004	
7,0	0,0001	0,0001	0,0001	0,0001	0,0001	0,0001	0,0001	0,0001	
8,0	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	



Pozos y Acuíferos – M. Villanueva y A. Iglesias

TABLAS DE LA FUNCION DE POZO EN ACUIFERO SEMICONFINADO  $W(u, r/B)$

(Continuación)

$u$ \ $r/b$	0.45	0.5	0.55	0.6	0.65	0.7	0.75	0.8
0	2.0258	1.8488	1.6931	1.5550	1.4317	1.3210	1.2212	1.1307
0.00001								
0.00002								
0.00003								
0.00004								
0.00005								
0.00006								
0.00007								
0.00008								
0.00009								
0.0001								
0.0002								
0.0003								
0.0004								
0.0005								
0.0006								
0.0007								
0.0008								
0.0009								
0.001								
0.002								
0.003								
0.004								
0.005								
0.006	2.0558							
0.007	2.0257							
0.008	2.0256	1.8488						
0.009	2.0253	1.8487						
0.01	2.0248	1.8486	1.6931	1.5550	1.4317	1.3210	1.2212	1.1307
0.02	2.0023	1.8379	1.6883	1.5530	1.4309	1.3207	1.2210	1.1306
0.03	1.9515	1.8062	1.6695	1.5423	1.4251	1.3177	1.2195	1.1299
0.04	1.8869	1.7603	1.6379	1.5213	1.4117	1.3094	1.2146	1.1270
0.05	1.8181	1.7075	1.5985	1.4927	1.3914	1.2955	1.2052	1.1210
0.06	1.7497	1.6524	1.5551	1.4593	1.3663	1.2770	1.1919	1.1116
0.07	1.6835	1.5973	1.5101	1.4232	1.3380	1.2551	1.1754	1.0993
0.08	1.6206	1.5436	1.4650	1.3860	1.3078	1.2310	1.1564	1.0847
0.09	1.5609	1.4918	1.4206	1.3486	1.2766	1.2054	1.1358	1.0682
0.1	1.5048	1.4422	1.3774	1.3115	1.2451	1.1791	1.1140	1.0505
0.2	1.0879	1.0592	1.0286	0.9964	0.9629	0.9284	0.8932	0.8575
0.3	0.8306	0.8142	0.7964	0.7775	0.7577	0.7369	0.7154	0.6932
0.4	0.6551	0.6446	0.6332	0.6209	0.6080	0.5943	0.5801	0.5653
0.5	0.5278	0.5206	0.5128	0.5044	0.4955	0.4860	0.4761	0.4658
0.6	0.4317	0.4266	0.4210	0.4150	0.4086	0.4018	0.3946	0.3871
0.7	0.3572	0.3534	0.3493	0.3449	0.3401	0.3351	0.3297	0.3242
0.8	0.2982	0.2953	0.2922	0.2889	0.2853	0.2815	0.2774	0.2732
0.9	0.2507	0.2485	0.2436	0.2408	0.2378	0.2347	0.2314	
1.0	0.2120	0.2103	0.2085	0.2065	0.2043	0.2020	0.1995	0.1970
2.0	0.0480	0.0477	0.0475	0.0470	0.0463	0.0460		
3.0	0.0129	0.0128	0.0128	0.0127	0.0127	0.0126	0.0125	0.0125
4.0	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037
5.0	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011
6.0	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
7.0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
8.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Apendice D. Tablas y gráficos de uso más frecuente

TABLAS DE LA FUNCION DE POZO EN ACUIFERO SEMICONFINADO  $W(u, r/B)$

(Continuación)

$u \backslash r/B$	0.85	0.9	0.95	1.0	1.5	2.0	2.5
0	1.0485	0.9735	0.9049	0.8420	0.4276	0.2278	0.1247
0.00001							
0.00002							
0.00003							
0.00004							
0.00005							
0.00006							
0.00007							
0.00008							
0.00009							
0.0001							
0.0002							
0.0003							
0.0004							
0.0005							
0.0006							
0.0007							
0.0008							
0.0009							
0.001							
0.002							
0.003							
0.004							
0.005							
0.006							
0.007							
0.008							
0.009							
0.01	1.0485						
0.02	1.0484	0.9735	0.9049				
0.03	1.0481	0.9733	0.9048	0.8420			
0.04	1.0465	0.9724	0.9044	0.8418			
0.05	1.0426	0.9700	0.9029	0.8409			
0.06	1.0362	0.9657	0.9001	0.8391			
0.07	1.0272	0.9593	0.8956	0.8360	0.4276		
0.08	1.0161	0.9510	0.8895	0.8316	0.4275		
0.09	1.0032	0.9411	0.8819	0.8259	0.4274		
0.1	0.9890	0.9297	0.8730	0.8190	0.4271	0.2278	
0.2	0.8216	0.7857	0.7501	0.7148	0.4135	0.2268	0.1247
0.3	0.6706	0.6476	0.6244	0.6010	0.3812	0.2211	0.1240
0.4	0.5501	0.5345	0.5186	0.5024	0.3411	0.2096	0.1217
0.5	0.4550	0.4440	0.4326	0.4210	0.3007	0.1944	0.1174
0.6	0.3793	0.3712	0.3629	0.3543	0.2630	0.1774	0.1112
0.7	0.3183	0.3123	0.3060	0.2996	0.2292	0.1602	0.1040
0.8	0.2687	0.2641	0.2592	0.2543	0.1994	0.1436	0.0961
0.9	0.2280	0.2244	0.2207	0.2168	0.1734	0.1281	0.0881
1.0	0.1943	0.1914	0.1885	0.1885	0.1509	0.1139	0.0803
2.0	0.0456	0.0452	0.0448	0.0444	0.0394	0.0335	0.0271
3.0	0.0124	0.0123	0.0123	0.0122	0.0112	0.0100	0.0086
4.0	0.0036	0.0036	0.0036	0.0036	0.0034	0.0031	0.0027
5.0	0.0011	0.0011	0.0011	0.0011	0.0010	0.0010	0.0009
6.0	0.0004	0.0004	0.0004	0.0004	0.0003	0.0003	0.0003
7.0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
8.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TABLAS DE LA FUNCION DE POZO EN ACUIFERO SEMICONFINADO  $W(u, r/B)$

(Continuación)

$u \backslash r/B$	3,0	3,5	4,0	4,5	5,0	6,0	7,0	8,0
0	0,0695	0,0392	0,0223	0,0128	0,0074	0,0025	0,0008	0,0003
0,000001								
0,000002								
0,000003								
0,000004								
0,000005								
0,000006								
0,000007								
0,000008								
0,000009								
0,0001								
0,0002								
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0,02								
0,03								
0,04								
0,05								
0,06								
0,07								
0,08								
0,09								
0,1								
0,2	0,0695							
0,3	0,0694							
0,4	0,0691	0,0392						
0,5	0,0681	0,0390	0,0223					
0,6	0,0664	0,0386	0,0222	0,0128				
0,7	0,0639	0,0379	0,0221	0,0127				
0,8	0,0607	0,0368	0,0218	0,0127	0,0074			
0,9	0,0572	0,0354	0,0213	0,0125	0,0073			
1,0	0,0534	0,0338	0,0207	0,0123	0,0073	0,0025		
2,0	0,0210	0,0156	0,0112	0,0077	0,0051	0,0021	0,0008	0,0003
3,0	0,0071	0,0057	0,0045	0,0034	0,0025	0,0012	0,0006	0,0002
4,0	0,0024	0,0020	0,0016	0,0013	0,0010	0,0006	0,0003	0,0002
5,0	0,0008	0,0007	0,0006	0,0005	0,0004	0,0002	0,0001	0,0001
6,0	0,0003	0,0003	0,0002	0,0002	0,0002	0,0001	0,0001	0,0000
7,0	0,0001	0,0001	0,0001	0,0001	0,0001	0,0000	0,0000	0,0000
8,0	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

TABLA 19

CAUDALES EN m<sup>3</sup>/h PARA DIFERENTES RELACIONES DE TUBERIAS Y DIAFRAGMAS  
(Sociedad Layne y Boyler)

Alturas manométricas (cm)	Orificio 3"		Orificio 4"		Orificio 5"	
	Tubo 4"	Tubo 6"	Tubo 6"	Tubo 8"	Tubo 6"	Tubo 8"
12.70	22.700	17.252	32.915	31.780	63.560	49.940
15.24	24.516	18.614	36.326	34.050	69.235	54.480
17.78	26.105	19.976	39.044	36.320	74.456	59.020
20.32	27.694	21.338	41.995	38.590	79.450	63.560
22.86	29.056	22.473	44.265	40.860	84.444	67.646
25.40	30.191	23.608	46.535	43.130	89.211	71.732
30.48	33.142	25.878	51.075	47.216	97.610	78.542
35.56	35.639	27.921	55.161	50.848	105.555	85.352
40.64	37.909	29.964	58.339	54.026	112.365	91.254
45.72	40.406	31.780	61.517	57.204	118.948	96.702
50.80	42.449	33.596	64.696	60.382	124.396	101.923
55.88	44.719	35.412	67.873	63.333	129.844	106.690
63.50	47.670	37.909	71.959	67.419	138.016	112.592
76.20	52.210	41.541	78.542	73.775	151.616	121.672
88.90	56.750	44.719	85.125	79.223	164.802	130.752
101.60	60.382	47.670	91.027	84.217	177.287	139.832
114.30	63.787	50.394	96.475	88.984	187.956	148.004
127.00	67.192	53.118	101.696	93.751	197.944	155.722
139.70	70.370	55.842	106.463	98.291	207.024	163.667
152.40	73.321	58.339	111.003	102.831	215.196	170.477
165.10	76.045	60.836	115.543	107.144	222.687	177.287
177.80	79.223	63.560	119.175	111.457	230.632	184.097

(Continuación)

Alturas manométricas (cm)	Orificio 6"		Orificio 7"	Orificio 8"	Orificio 9"	Orificio 10"
	Tubo 8"	Tubo 10"	Tubo 10"	Tubo 10"	Tubo 12"	Tubo 12"
12.70	86.260	76.640			187.275	249.700
15.24	92.616	78.315			203.165	272.400
17.78	98.291	83.990			219.055	295.100
20.32	103.966	89.665	136.200	212.245	234.264	317.800
22.86	109.641	95.340	143.691	225.184	248.111	335.960
25.40	115.316	101.015	151.182	236.080	260.596	354.120
30.48	126.212	111.230	165.256	254.240	283.750	387.035
35.56	135.973	120.310	178.195	271.038	306.904	418.815
40.64	144.372	128.936	190.226	287.382	327.107	447.190
45.72	152.544	137.108	201.349	303.272	345.040	474.203
50.80	160.716	144.372	211.791	318.708	363.200	500.308
55.88	168.888	150.728	222.233	333.917	380.679	525.732
63.50	179.557	160.262	236.761	353.439	404.741	558.647
76.20	194.539	175.471	259.461	385.219	439.245	610.630
88.90	208.613	189.772	280.345	416.999	474.430	662.613
101.60	222.233	201.349	297.597		501.670	710.510
114.30	234.718	212.018	314.849		530.726	748.646
127.00	247.203	222.914	331.647		557.058	789.279
139.70	258.780	233.129	348.218		582.255	824.918
152.40	270.130	242.436	362.746		607.452	862.600
165.10	280.572	251.062				
177.80	290.560	258.780				

TABLA 20

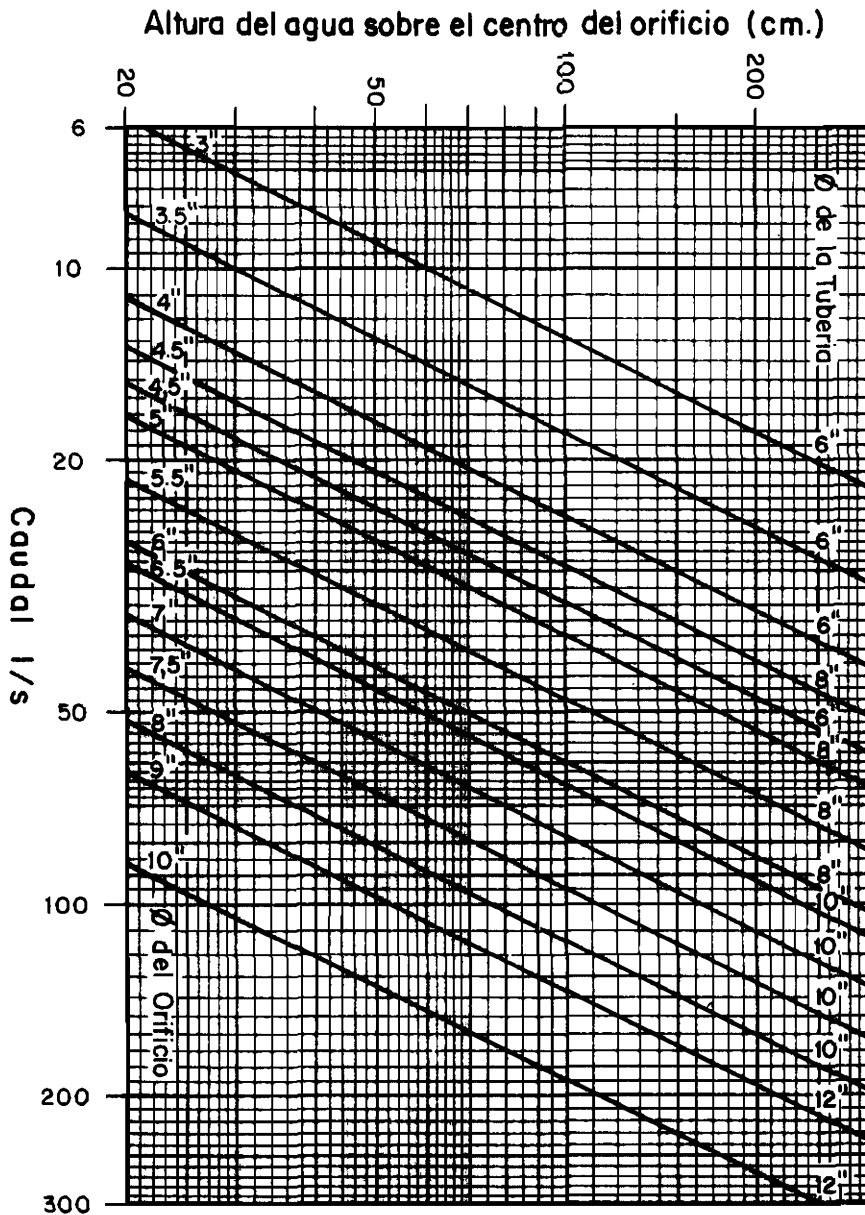
CAUDALES EN m<sup>3</sup>/h PARA DIFERENTES RELACIONES DE TUBERIAS Y DIAFRAGMAS  
(Filtros Johnson)

∅ de los orificios	2, 1/2-4	3-6	3-4	4-8	4-6
Relación d/D	0,615	0,5	0,75	0,5	0,66
Alturas manométricas (cm)	Caudal en m <sup>3</sup> /h				
12,7	12,485		20,203		
15,24	13,620	18,614	22,014	32,688	35,866
17,78	14,755	19,976	23,835	35,412	38,817
20,32	15,663	21,338	25,424	37,682	41,314
22,86	16,571	22,700	27,013	39,952	43,811
25,40	17,479	24,062	28,602	42,222	46,308
30,47	19,295	26,105	31,326	46,535	50,621
35,55	20,884	28,375	33,823	49,940	54,707
40,63	22,246	29,964	36,093	53,345	58,566
45,71	23,608	31,780	38,136	56,750	61,971
50,79	24,970	34,050	40,406	60,155	65,376
55,87	26,105	35,866	42,222	62,425	68,554
63,49	27,694	38,136	44,946	66,965	73,094
76,19	30,418	41,314	49,259	73,775	80,131
88,89	32,915	44,946	53,345	80,585	86,260
101,60	35,185	47,670	56,977	83,990	91,935
114,30	37,228	50,621	60,609	89,665	97,610
127,00	39,271	53,345	63,560	94,205	103,285
152,40	43,130	59,020	70,370	103,285	113,500

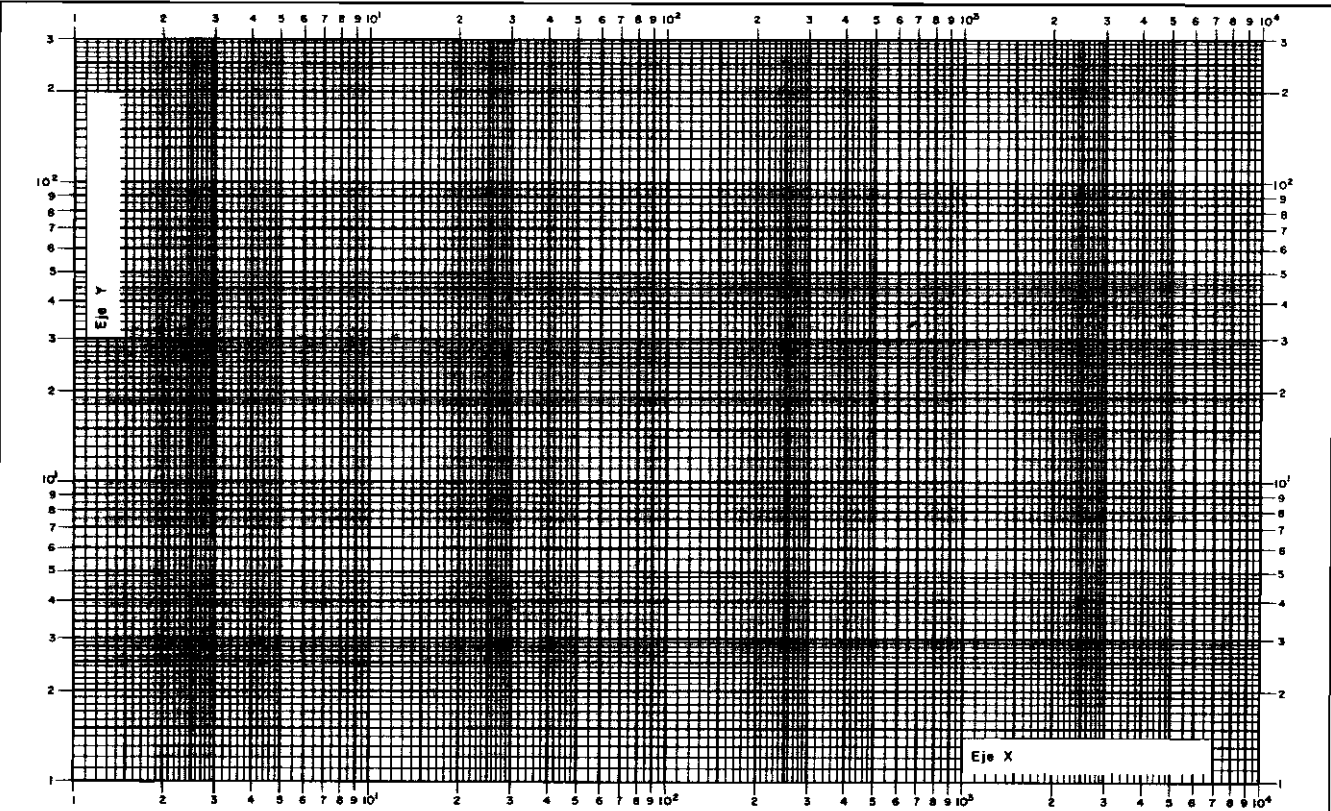
(Continuación)

∅ de los orificios	5-8	6-8	6-10	7-10	8-10
Relación d/D	0,625	0,75	0,6	0,7	0,8
Alturas manométricas (cm)	Caudal en m <sup>3</sup> /h				
15,24	54,480	88,530			
17,78	59,020	95,340	83,990	122,580	188,410
20,32	62,425	102,150	89,665	131,660	199,760
22,86	66,965	107,825	95,340	138,470	213,380
25,40	70,370	113,500	99,880	145,280	224,730
30,47	77,380	124,850	108,960	158,900	245,160
35,55	82,855	135,065	118,040	172,520	265,590
40,63	88,530	144,145	125,985	183,870	283,750
45,71	94,205	153,225	133,930	195,220	301,910
50,79	99,880	161,170	140,740	206,570	317,800
55,87	104,420	169,115	147,550	215,650	333,690
63,49	111,230	180,465	156,630	231,540	354,120
76,19	122,580	197,490	172,520	254,240	388,170
88,89	131,660	213,380	186,140	274,670	419,950
101,60	140,740	227,000	199,760	292,830	449,460
114,30	149,820	240,620	211,110	310,990	
127,00	156,630	254,240	222,460	326,880	
152,40	172,520	279,210	245,160	358,660	









<p><b>DIRECCION DE AGUAS SUBTERRANEAS Y GEOTECNIA</b></p>	<p>GRAFICO DE</p>  <p>CAUDAL:                      FECHA</p>	<p>VALORES OBTENIDOS:</p>    	<p>GRAFICO Nº</p>
<p>TOPONIMIA</p>			



ESCALA 1 n°	[Scale 1 grid]				
ESCALA 2 n°	[Scale 2 grid]				
ESCALA 3 n°	[Scale 3 grid]				
ESCALON	Q ( )	Q (m <sup>3</sup> /día)	d (m)	d/Q (m/m <sup>3</sup> /día)	VALORES OBTENIDOS
1					
2					
3					
4					
5					
6					
<b>DIRECCION DE AGUAS SUBTERRANEAS Y GEOTECNIA</b>	TOPONIMIA:	GRAFICO DE		FECHA	GRAFICO Nº