

MINISTERIO DE OBRAS PUBLICAS  
DIRECCION GENERAL DE AGUAS

Boletín N° : 342  
Mes : Octubre  
Año : 2006

DE : JAVIER NARBONA NARANJO  
ING. JEFE DEPARTAMENTO DE HIDROLOGIA

*INFORMACION PLUVIOMETRICA, FLUVIOMETRICA,  
ESTADO DE EMBALSES Y AGUAS SUBTERRANEAS*

Contenido :

- 1.- Informe pluviométrico
- 2.- Volúmenes de embalses
- 3.- Informe fluviométrico
- 4.- Informe aguas subterráneas

En Internet ([www.dga.cl](http://www.dga.cl)) se publica: .  
-Los informes de este boletín  
-Caudales en tiempo real

**NOTA:** Datos provisorios sujetos a modificaciones posteriores

## INFORME PLUVIOMETRICO NACIONAL N°10

ESTACIONES	OCTUBRE	TOTALES AL 31 DE OCTUBRE			EXCESO O DÉFICIT (%)
		2006 (mm)	2005 (mm)	PROMEDIO (mm)	
CENTRAL CHAPIQUIÑA	0.0	155.5	75.0	139.6*	11
EMBALSE CONCHI	0.0	34.2	27.0	18.2*	88
CALAMA	0.0	0.7	7.0	4.2	- 84
ANTOFAGASTA	0.0	11.5	0.5	4.2	174
COPIAPÓ	0.0	0.0	18.7	13.2	-100
EMBALSE LAUTARO	0.0	1.0	31.5	30.6	- 97
VALLENAR	0.0	2.0	28.6	34.2	- 94
RIVADAVIA	0.0	42.5	86.9	94.2	- 55
VICUÑA	0.0	51.4	65.6	94.1	- 45
LA SERENA	3.0	68.5	62.4	81.3	- 16
OVALLE	3.8	66.2	51.8	102.6	- 36
EMBALSE PALOMA	1.0	76.7	80.4	133.7	- 43
COGOTÍ 18	10.5	129.5	120.0	184.1	- 30
HUINTIL	38.0	173.0	157.9	220.9	- 22
COIRÓN	44.6	226.6	278.8	326.0	- 30
VILCUYA	34.5	366.7	603.5	322.9	14
SAN FELIPE	48.5	268.2	246.7	201.0	33
LAGO PEÑUELAS	66.0	764.0	686.6	602.6	27
EMBALSE EL YESO	87.0	665.3	1322.1	512.1	30
CERRO CALÁN	64.2	395.2	646.3	389.4	1
SANTIAGO (MOP)	62.8	372.4	498.3	300.1	24
RANCAGUA	98.9	526.3	547.3	396.1	33
SAN FERNANDO	72.4	824.3	1012.2	670.3	23
CONVENTO VIEJO	79.5	772.0	1037.7	660.7	17
CURICO	49.3	676.3	918.5	675.0	0
TALCA	63.9	751.3	803.5	619.1	21
COLORADO	150.0	1659.5	1739.4	1337.1	24
LINARES	91.5	938.6	1037.0	869.4	8
PARRAL	64.0	1103.6	1002.8	919.5	20
EMBALSE DIGUA	139.4	1691.6	1675.2	1410.0	20
CHILLÁN	95.0	1212.1	1190.0	940.8	29
CONCEPCIÓN	107.6	1414.2	1333.5	1103.3	28
LOS ÁNGELES	88.6	1319.0	1149.2	1021.4	29
CAÑETE	82.8	1516.2	1367.9	1156.1	31
ANGOL	52.0	1374.9	1362.4	1005.1	37
TEMUCO	110.9	1439.7	1366.1	1073.6	34
VALDIVIA	159.9	2068.1	2148.7	1986.4	4
OSORNO	148.6	1370.3	1264.5	1399.1	- 2
PUERTO MONTT	219.6	2398.4	1958.5	1692.1	42
COYHAIQUE	126.8	1019.9	962.2	1067.3	- 4
PUNTA ARENAS	44.8	593.4	477.2	372.8	59

Promedios acumulados para el período 1961-1990 (D.G.A)

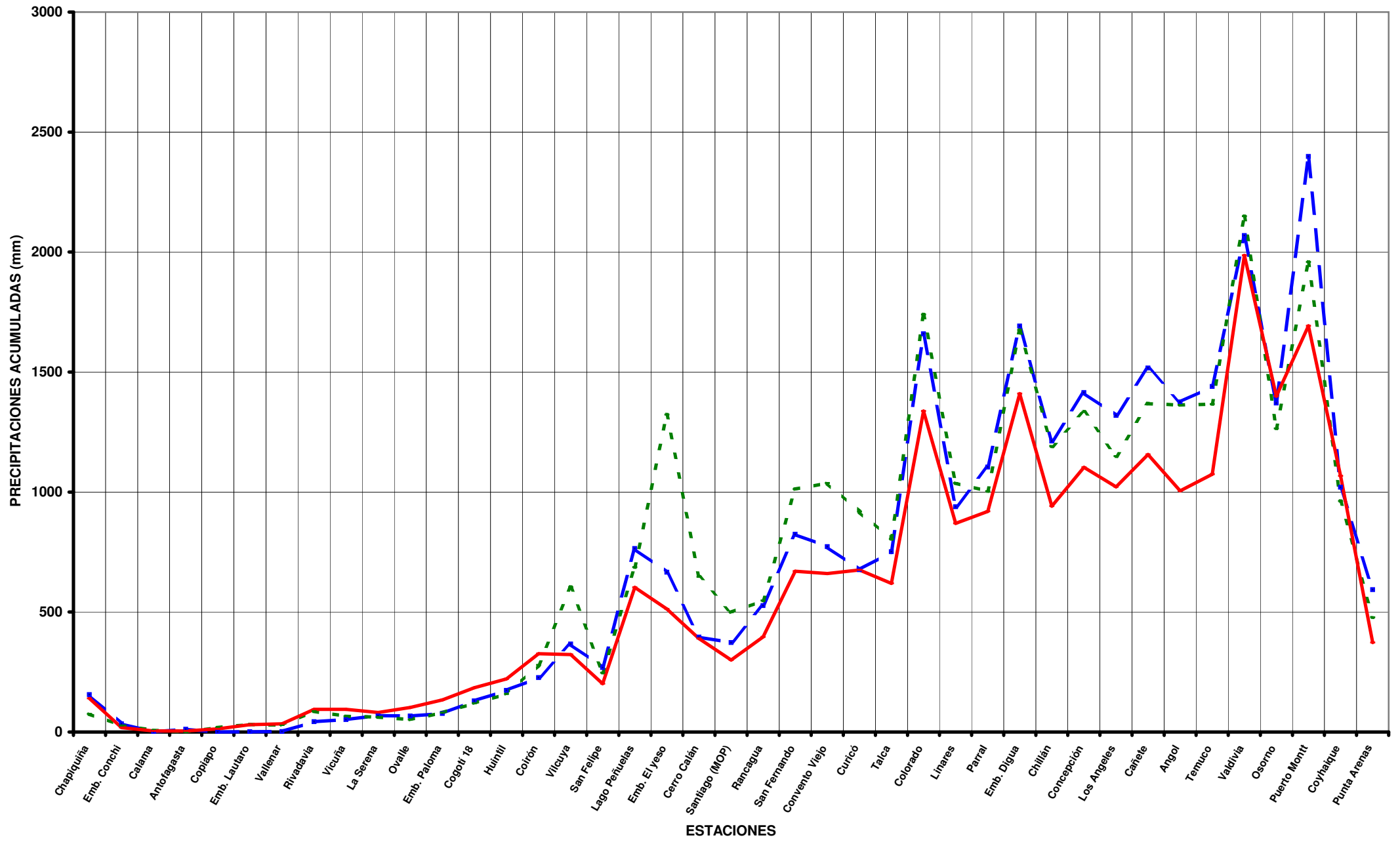
\* : Promedios calculados para períodos inferiores a 30 años  
Valores expresados en milímetros (1 mm = 1 lt x m2)

TOTALES DE LLUVIA HASTA EL  
31 de Octubre de 2006

Normal

Año 2006

Año 2005



**ESTADO DE EMBALSES**

Ultimo día del mes  
(Volúmenes en mill-m<sup>3</sup>)

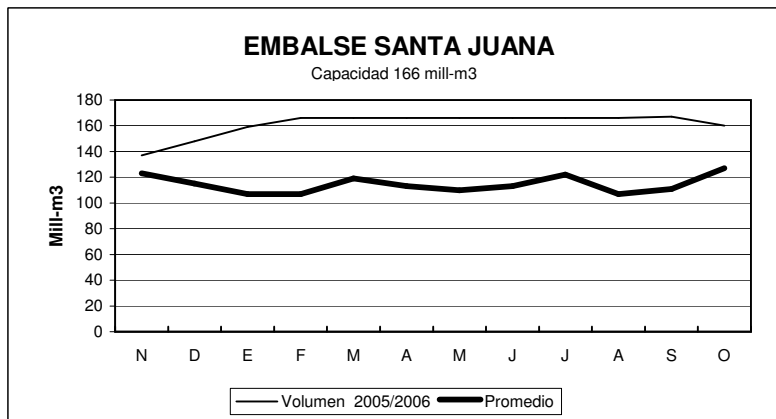
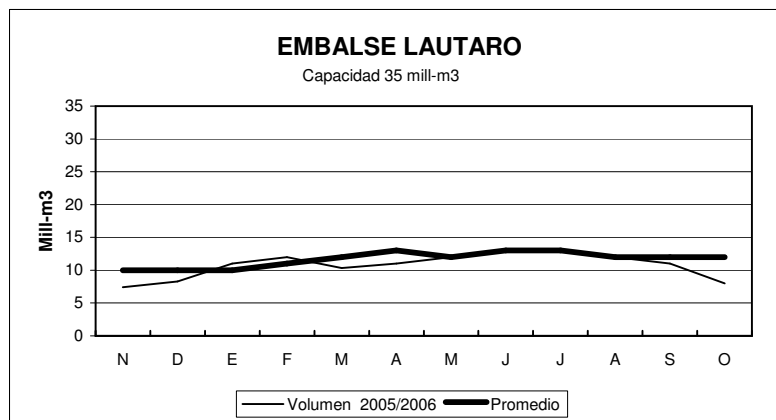
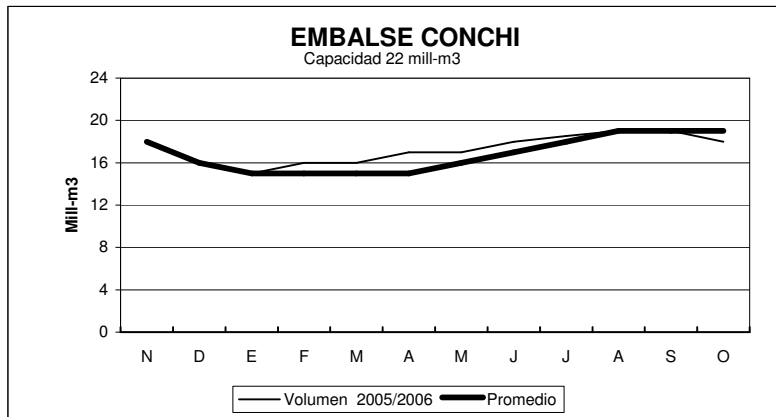
EMBALSE	REGION	CUENCA	CAPACIDAD	PROMEDIO	Octubre	
				HISTORICO MENSUAL	2006	2005
Conchi	II	Loa	22	19	18	19
Lautaro	III	Copiapó	35	12	8	9
Santa Juana	III	Huasco	166	117	160	135
La Laguna	IV	Elqui	40	23	35	36
Puclaro	IV	Elqui	200	119	189	142
Recoleta	IV	Limarí	100	67	87	81
La Paloma	IV	Limarí	748	438	587	506
Cogotí	IV	Limarí	150	87	81	80
Culimo	IV	Quilimarí	10	5.2	1.6	3.7
Corrales	IV	Illapel	50	41	50	43
Peñuelas	V	Peñuelas	95	31	32	34
El Yeso	RM	Maipo	256	153	178	179
Rungue	RM	Maipo	2.2	1.5	2.0	2.0
Rapel	VI	Rapel	695	490	636	615
Colbún	VII	Maule	1544	1278	1555	1425
Lag. Maule	VII	Maule	1420	983	1283	863
Bullileo	VII	Maule	60	57	60	60
Digua	VII	Maule	220	215	220	220
Tutuvén	VII	Maule	15	11.6	14	12
Coihueco	VIII	Itata	29	29	30	29
Lago Laja (&)	VIII	Bio-Bio	5582	3465	3421	2690

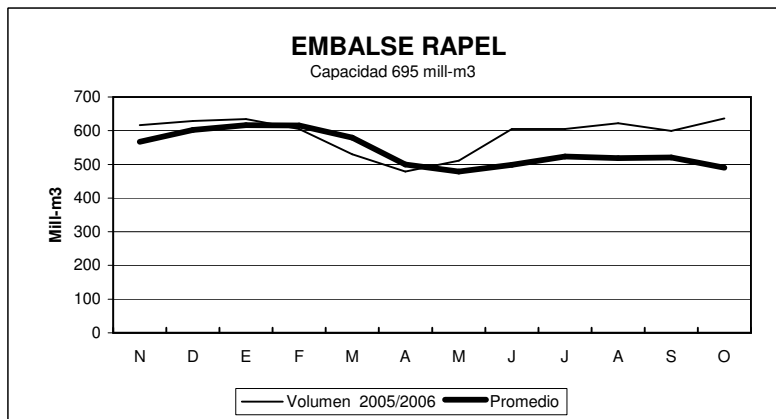
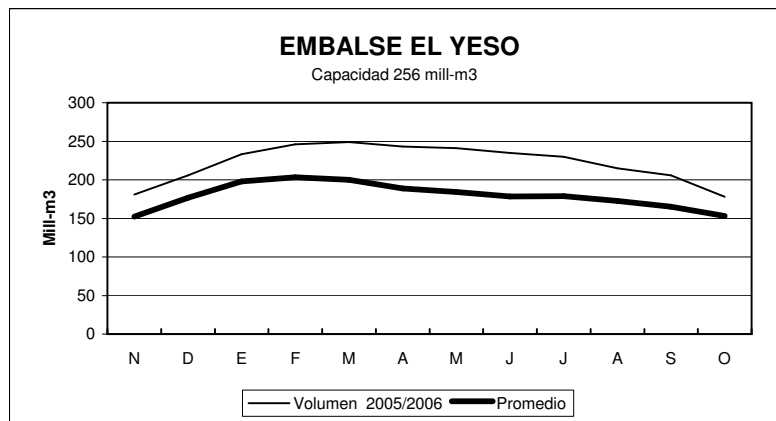
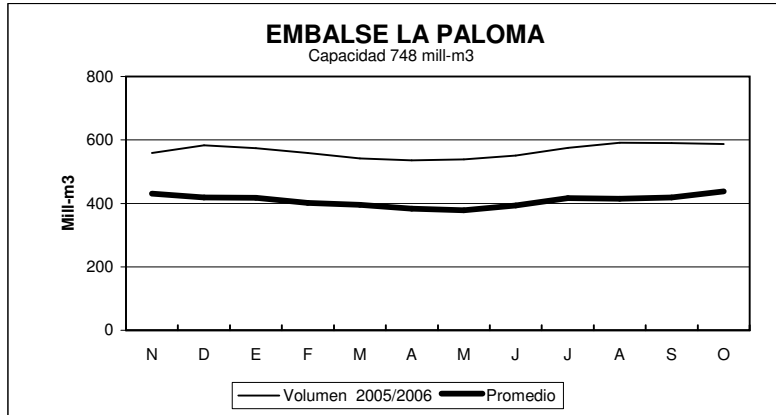
**RESUMEN ANUAL**

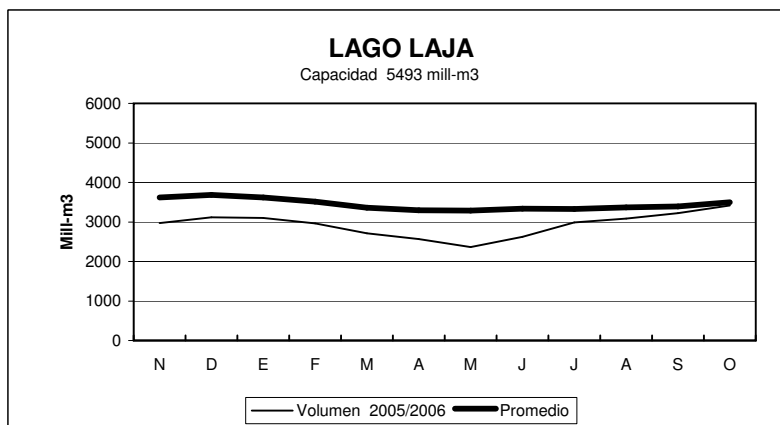
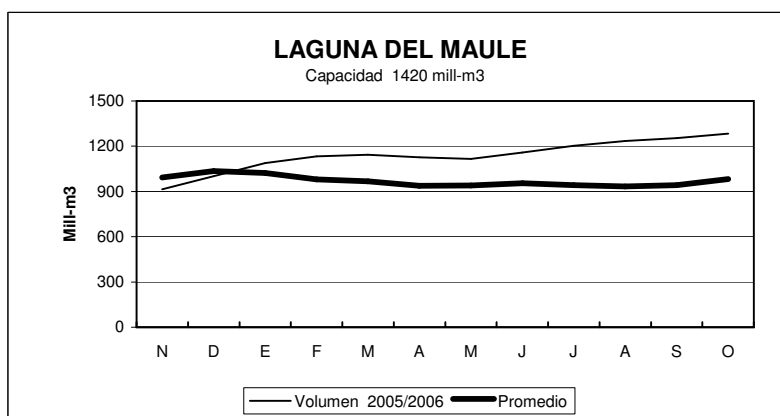
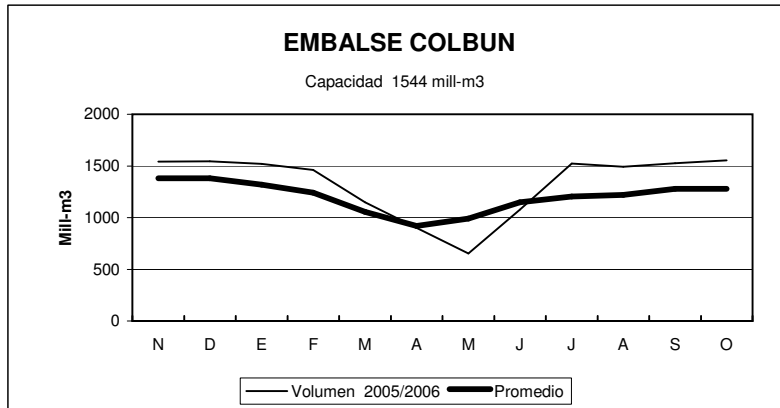
EMBALSE	2005-2006											
	N	D	E	F	M	A	M	J	J	A	S	O
Conchi	18	16	15	16	16	17	17	18	19	19	19	18
Lautaro	7	8	11	12	10	11	12	13	13	12	11	8
Santa Juana	137	148	159	166	166	166	166	166	166	166	167	160
La Laguna	37	38	36	31	28	32	34	33	32	31	32	35
Puclaro	155	189	200	200	200	200	200	196	197	197	192	189
Recoleta	86	91	91	100	92	94	95	97	97	95	91	87
La Paloma	559	583	574	559	542	536	539	551	575	591	590	587
Cogotí	100	104	98	92	86	82	79	79	83	85	82	81
Culimo	2.9	2.4	1.9	1.2	0.4	0.1	0.4	0.4	0.7	1.3	1.4	1.6
Corrales	44	46	49	49	49	48	48	48	50	51	50	50
Peñuelas	32	29	27	24	22	21	20	21	30	34	33	32
El Yeso	181	206	233	246	249	243	241	235	230	215	206	178
Rungue	1.9	2.2	1.0	0.6	0.3	0.2	0.2	0.3	2.0	2.0	2.0	2.0
Rapel	616	629	634	605	530	479	511	605	605	622	599	636
Colbún	1542	1544	1519	1462	1148	902	654	1078	1522	1491	1525	1555
Lag. Maule	914	1001	1088	1134	1144	1127	1115	1159	1202	1234	1254	1283
Bullileo	60	60	49	24	0	0	7	30	60	60	60	60
Digua	199	220	93	34	11	8.6	2.7	93	179	219	220	220
Tutuvén	12	15	6.1	4	2.0	3.4	3.0	10	11	12	12	14
Coihueco	29	28	22	14	6.6	3.9	6	10	16	27	29	30
Lago Laja (&)	2974	3120	3104	2960	2709	2566	2365	2620	2989	3083	3224	3421

(&) : Volumen sobre cota 1300 msnm

### ESTADO DE EMBALSES



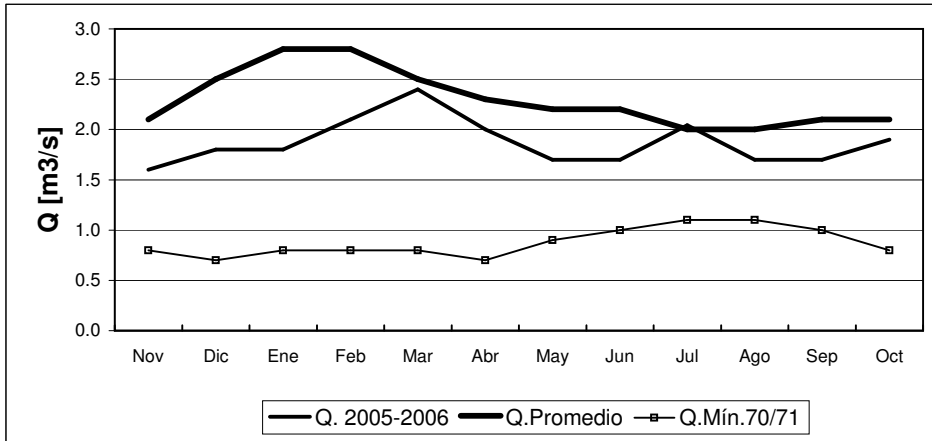




**INFORME FLUVIOMETRICO**  
Caudales medios mensuales en m3/seg

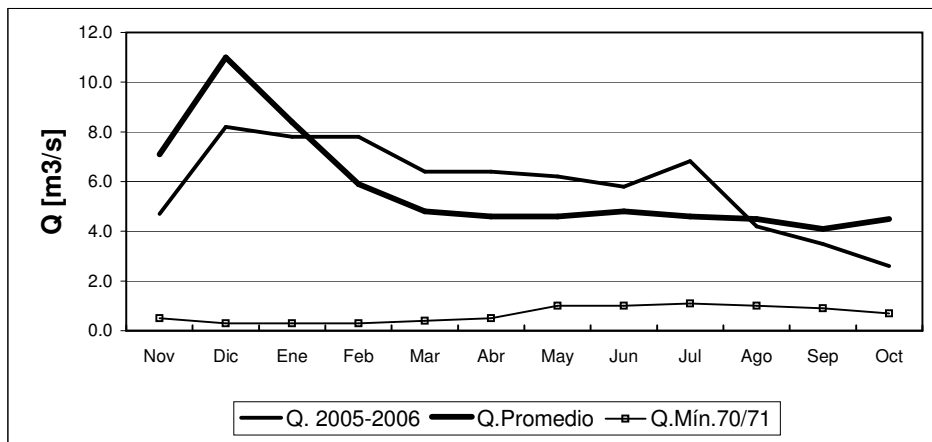
Oct-06

**RIO COPIAPO EN LA PUERTA**



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	1.6	1.8	1.8	2.1	2.4	2.0	1.7	1.7	2.0	1.7	1.7	1.9
<b>Q. Promedio</b>	2.1	2.5	2.8	2.8	2.5	2.3	2.2	2.2	2.0	2.0	2.1	2.1
<b>Q. Mín.70/71</b>	0.8	0.7	0.8	0.8	0.8	0.7	0.9	1.0	1.1	1.1	1.0	0.8

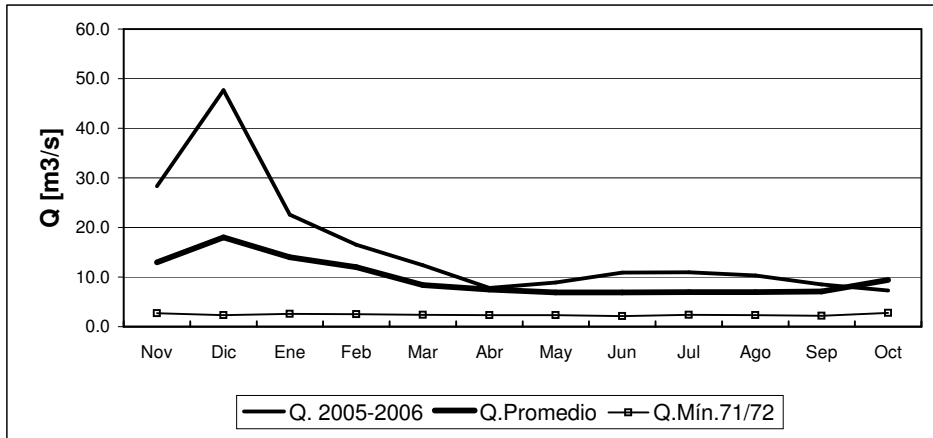
**RIO HUASCO EN ALGODONES**



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	4.7	8.2	7.8	7.8	6.4	6.4	6.2	5.8	6.8	4.2	3.5	2.6
<b>Q. Promedio</b>	7.1	11.0	8.4	5.9	4.8	4.6	4.6	4.8	4.6	4.5	4.1	4.5
<b>Q. Mín.70/71</b>	0.5	0.3	0.3	0.3	0.4	0.5	1.0	1.0	1.1	1.0	0.9	0.7

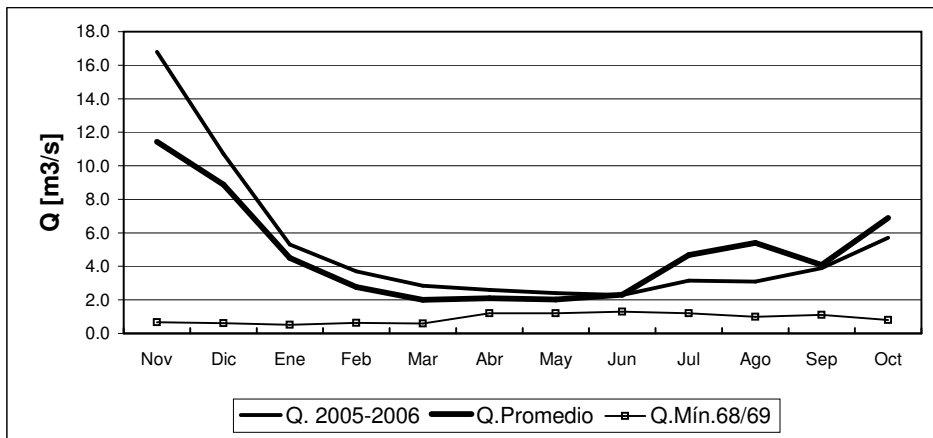


RIO ELQUI EN ALGARROBAL



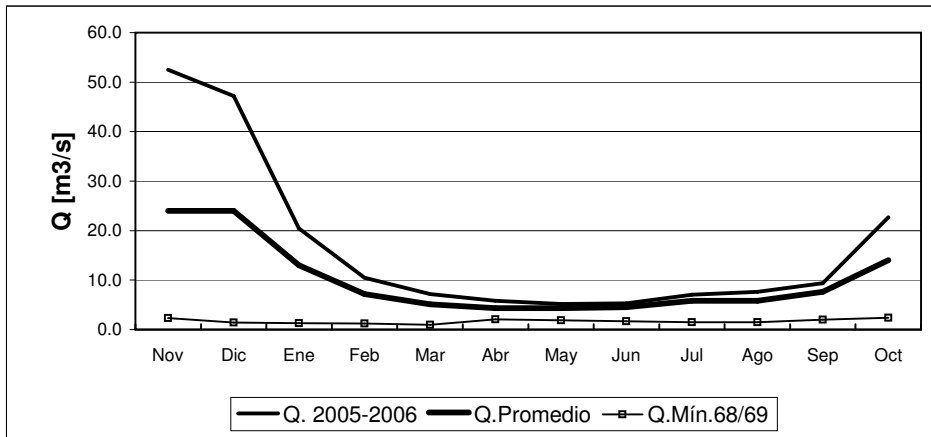
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	28.3	47.7	22.6	16.5	12.4	7.8	8.9	10.9	11.0	10.3	8.5	7.3
<b>Q. Promedio</b>	13.0	18.0	14.0	12.0	8.4	7.5	6.9	6.9	7.0	7.0	7.1	9.4
<b>Q. Mín. 71/72</b>	2.7	2.3	2.6	2.5	2.4	2.3	2.3	2.1	2.4	2.3	2.2	2.8

RIO GRANDE EN LAS RAMADAS



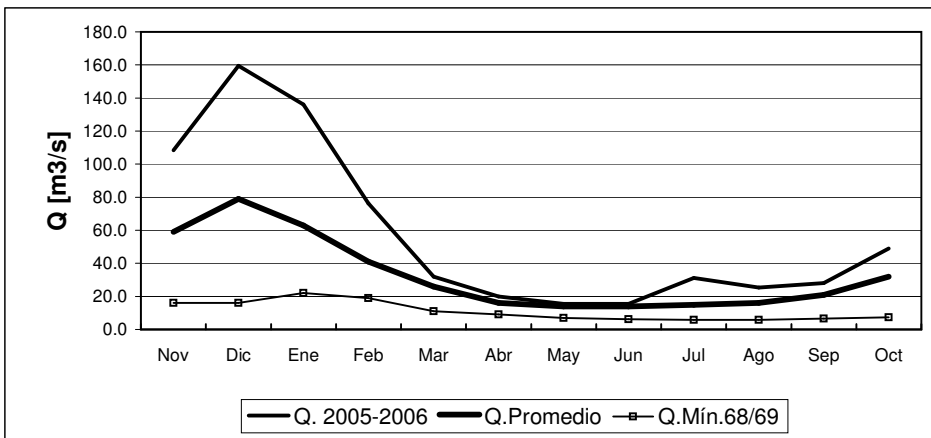
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	16.8	10.7	5.3	3.7	2.9	2.6	2.4	2.3	3.1	3.1	3.9	5.7
<b>Q. Promedio</b>	11.4	8.9	4.5	2.8	2.0	2.1	2.0	2.3	4.7	5.4	4.1	6.9
<b>Q. Mín. 68/69</b>	0.7	0.6	0.5	0.6	0.6	1.2	1.2	1.3	1.2	1.0	1.1	0.8

RIO CHOAPA EN CUNCUMEN



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	52.5	47.2	20.4	10.5	7.2	5.8	5.2	5.3	7.1	7.6	9.4	22.7
<b>Q.Promedio</b>	24.0	24.0	13.0	7.2	5.1	4.3	4.3	4.5	5.8	5.8	7.6	14.0
<b>Q.Mín.68/69</b>	2.3	1.4	1.3	1.2	1.0	2.1	1.9	1.7	1.5	1.5	2.0	2.4

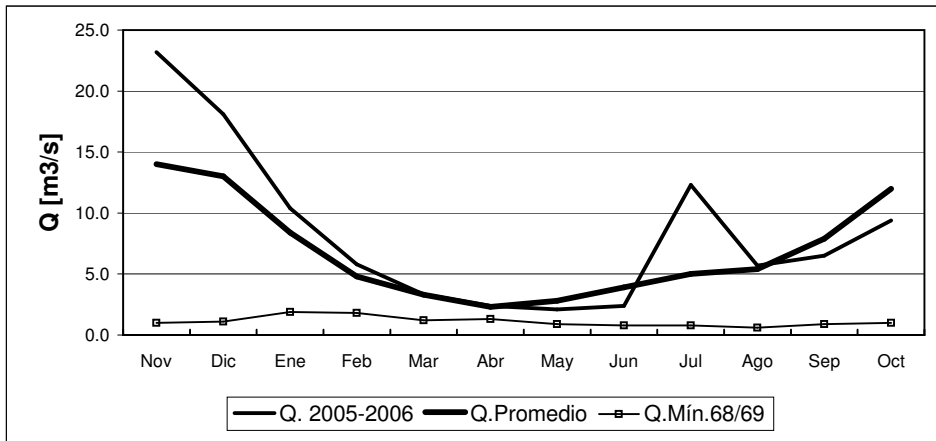
RIO ACONCAGUA EN CHACABUQUITO



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	108.4	159.5	136.0	76.3	31.9	20.0	15.5	15.4	31.2	25.4	28.0	49.0
<b>Q.Promedio</b>	59.0	79.0	63.0	41.0	26.0	16.0	14.0	14.0	15.0	16.0	21.0	32.0
<b>Q.Mín.68/69</b>	16.0	16.0	22.0	19.0	11.0	9.1	6.9	6.2	5.9	5.9	6.6	7.4

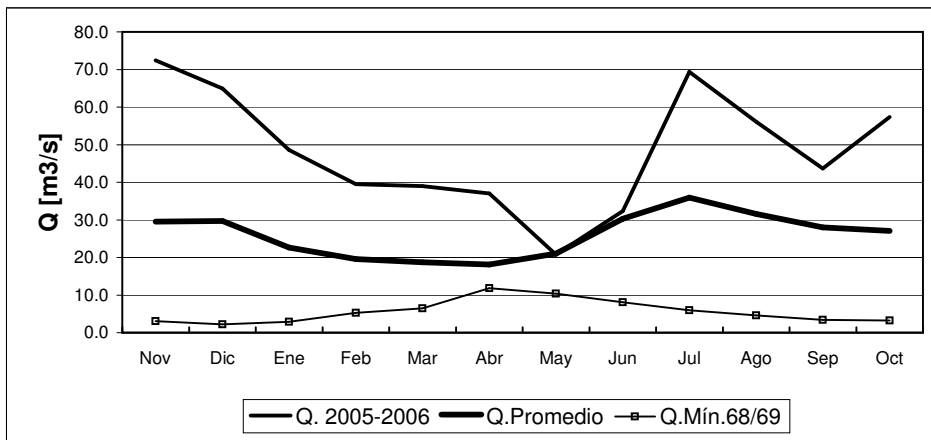


RIO MAPOCHO EN LOS ALMENDROS



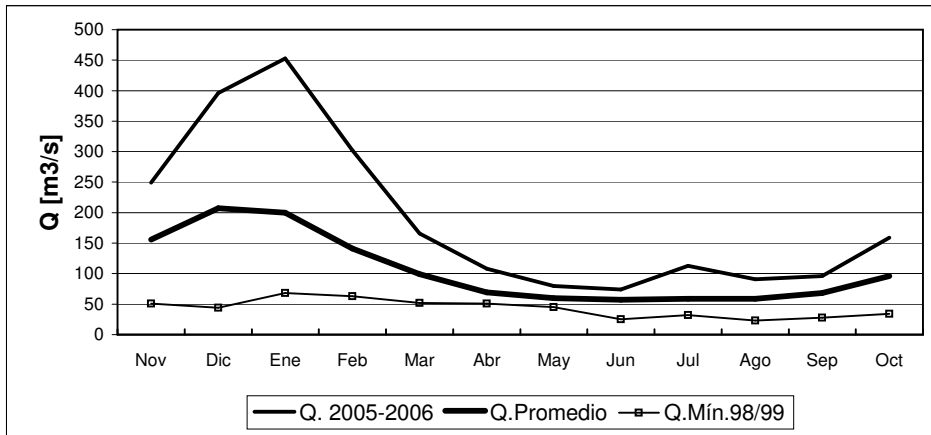
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<b>Q. 2005-2006</b>	23.2	18.1	10.4	5.8	3.3	2.4	2.1	2.4	12.3	5.7	6.5	9.4
<b>Q. Promedio</b>	14.0	13.0	8.4	4.8	3.3	2.3	2.8	3.9	5.0	5.4	7.9	12.0
<b>Q. Mín.68/69</b>	1.0	1.1	1.9	1.8	1.2	1.3	0.9	0.8	0.8	0.6	0.9	1.0

RIO MAPOCHO EN RINCONADA DE MAIPU



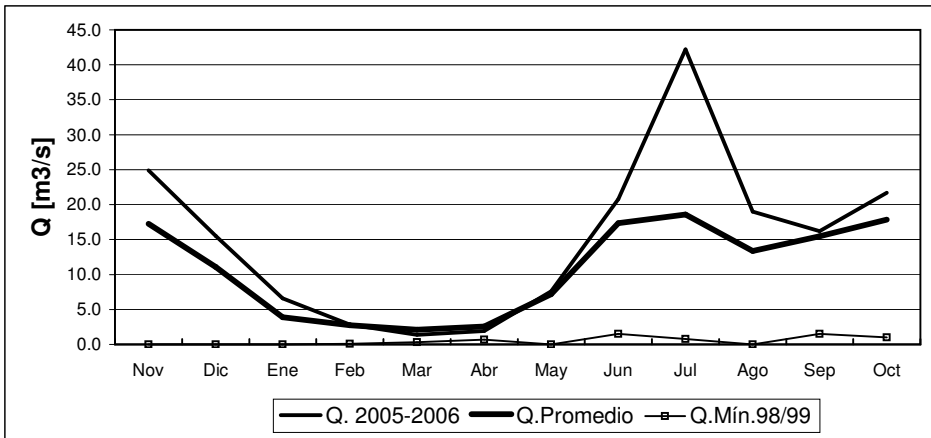
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	72.4	64.9	48.6	39.5	39.0	37.0	20.8	32.3	69.4	56.1	43.7	57.4
<b>Q. Promedio</b>	29.5	29.7	22.6	19.6	18.7	18.1	21.0	30.3	35.9	31.6	28.0	27.1
<b>Q. Mín.68/69</b>	3.1	2.2	2.9	5.3	6.5	11.8	10.4	8.1	6.0	4.6	3.4	3.2

RIO MAIPO EN EL MANZANO



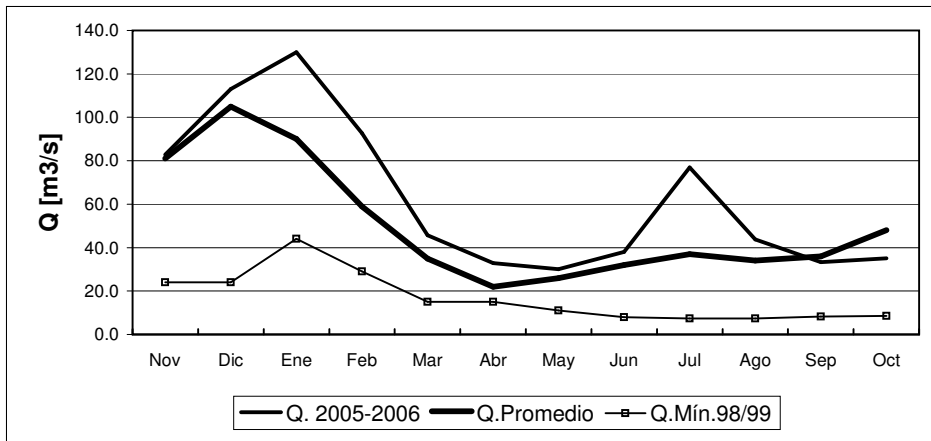
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	249	396	453	302	166	108	80	74	113	91	96	159
<b>Q.Promedio</b>	156	207	200	141	99	69	60	57	59	59	68	96
<b>Q.Mín.98/99</b>	51	44	68	63	52	51	45	25	32	23	28	34

RIO CLARO EN EL VALLE 2



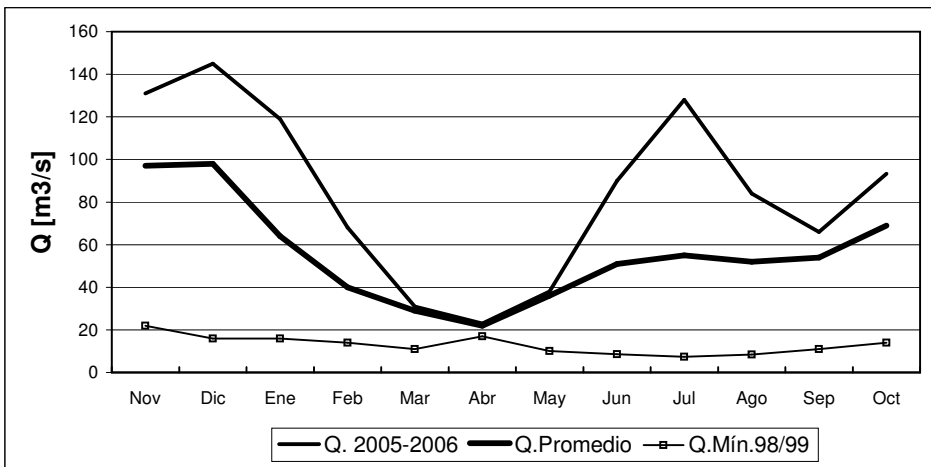
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	24.9	15.5	6.6	2.8	1.4	1.9	7.6	20.8	42.2	19.0	16.2	21.7
<b>Q.Promedio</b>	17.2	11.1	3.9	2.7	2.1	2.6	7.2	17.3	18.6	13.4	15.5	17.9
<b>Q.Mín.98/99</b>	0.0	0.0	0.0	0.1	0.3	0.7	0.0	1.5	0.8	0.0	1.5	1.0

RIO TINGUIRIRICA BAJO BRIONES



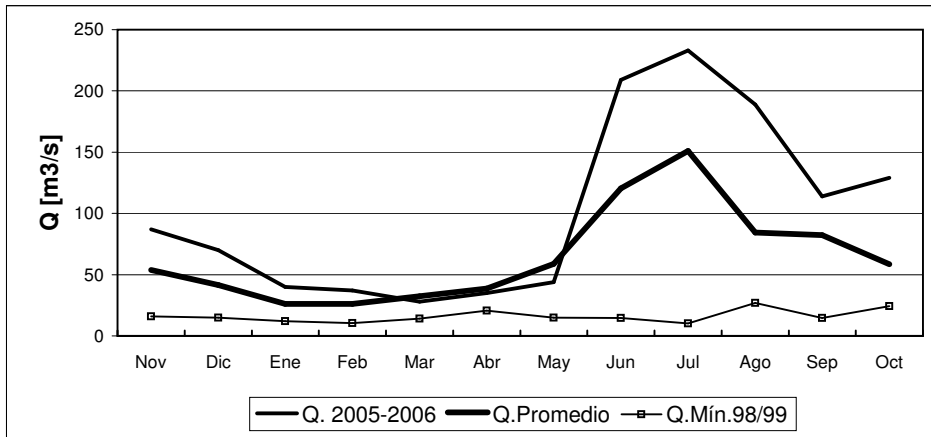
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	82.8	113.0	130.0	92.7	45.7	32.9	30.0	38.0	77.0	43.7	33.3	35.1
<b>Q. Promedio</b>	81.0	105.0	90.0	59.0	35.0	22.0	26.0	32.0	37.0	34.0	36.0	48.0
<b>Q. Mín. 98/99</b>	24.0	24.0	44.0	29.0	15.0	15.0	11.0	8.0	7.4	7.4	8.2	8.5

RIO TENO DESPUES DE JUNTA



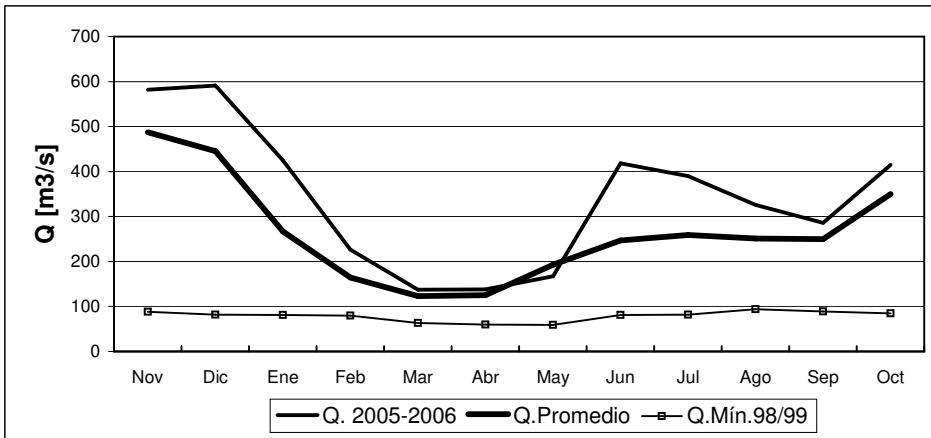
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	131	145	119	68	31	23	38	90	128	84	66	93
<b>Q. Promedio</b>	97	98	64	40	29	22	36	51	55	52	54	69
<b>Q. Mín. 98/99</b>	22	16	16	14	11	17	10	8.6	7.4	8.4	11	14

RIO CLARO EN RAUQUEN



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	87	70	40	37	28	35	44	209	233	189	114	129
<b>Q. Promedio</b>	54	41	26	26	33	39	59	121	151	84	82	58
<b>Q. Mín.98/99</b>	16	15	12	10	14	21	15	15	10	27	15	24

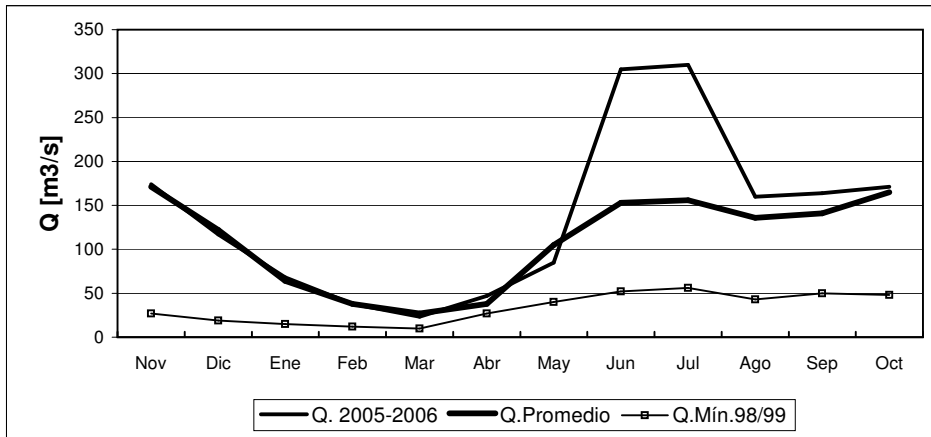
RIO MAULE EN ARMERILLO (R. N.)



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	582	591	425	226	137	138	167	418	390	326	286	415
<b>Q. Promedio</b>	487	445	267	164	123	125	193	247	259	251	250	350
<b>Q. Mín.98/99</b>	88	82	81	80	63	60	59	81	82	94	89	85

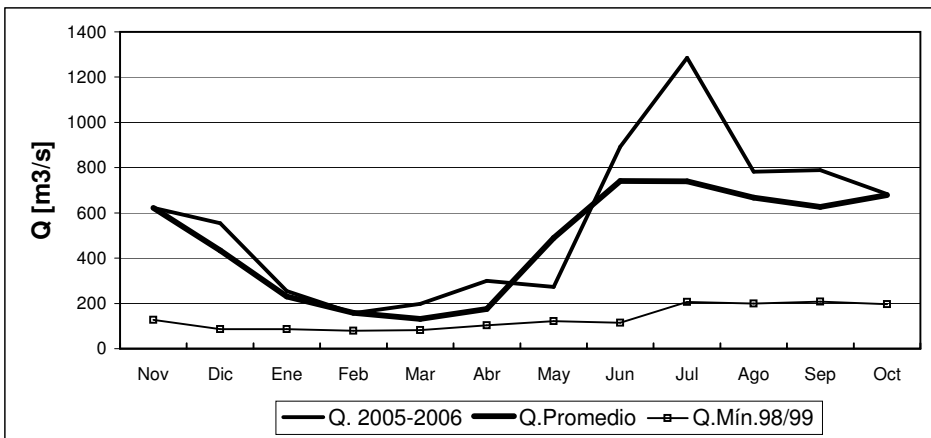
nota: caudal julio 2006 corresponde a últimos 15 días

RIO ÑUBLE EN SAN FABIAN



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	174	117	68	38	23	47	85	305	310	160	164	171
<b>Q. Promedio</b>	171	122	64	38	27	38	105	153	156	136	141	165
<b>Q. Mín.98/99</b>	27	19	15	12	10	27	40	52	56	43	50	48

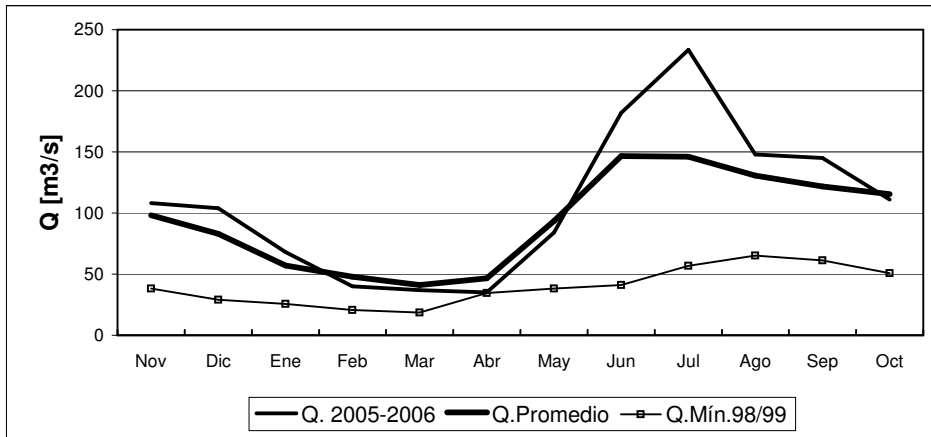
RIO BIO-BIO EN RUCALHUE



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	622	554	255	157	198	300	273	892	1285	782	789	683
<b>Q. Promedio</b>	622	434	231	158	132	176	489	741	740	668	627	679
<b>Q. Mín.98/99</b>	127	86	86	79	82	103	122	114	207	200	208	197

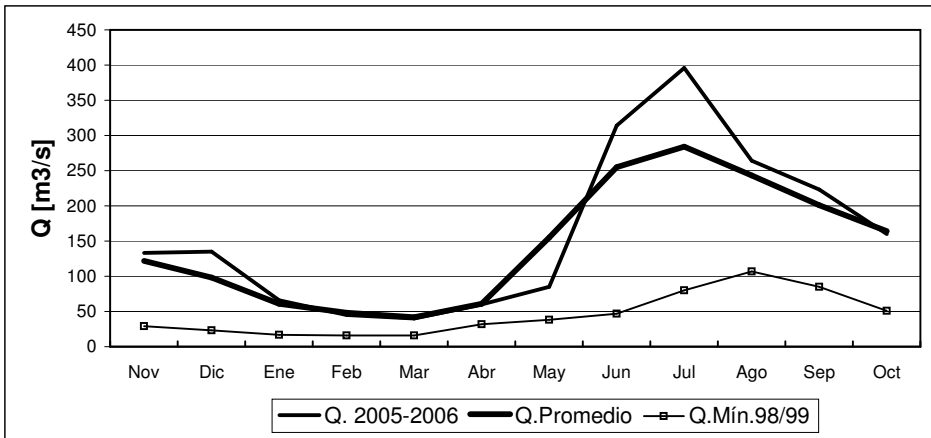


RIO CAUTIN EN RARI-RUCA



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	108	104	68	40	37	35	84	182	233	148	145	111
<b>Q. Promedio</b>	98	83	57	48	41	47	93	147	146	131	122	116
<b>Q. Mín.98/99</b>	38	29	26	21	19	35	38	41	57	65	61	51

RIO CAUTIN EN CAJON

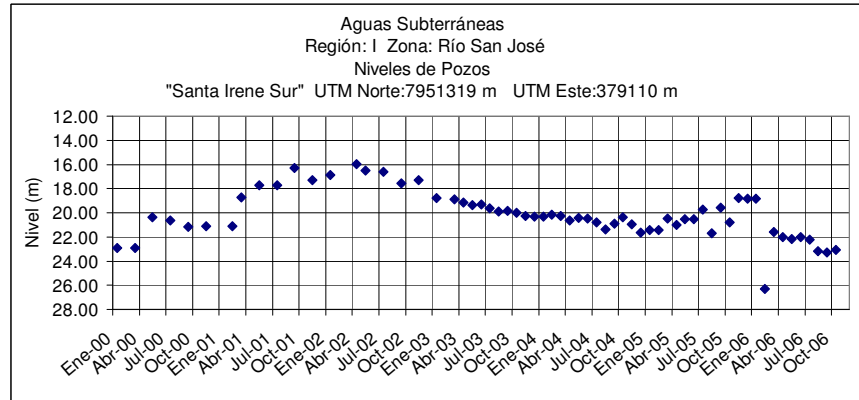


	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2005-2006</b>	133	135	66	45	40	60	85	314	396	264	223	160
<b>Q. Promedio</b>	122	98	61	48	42	61	155	255	284	243	201	164
<b>Q. Mín.98/99</b>	29	23	17	16	16	32	38	47	80	107	85	51

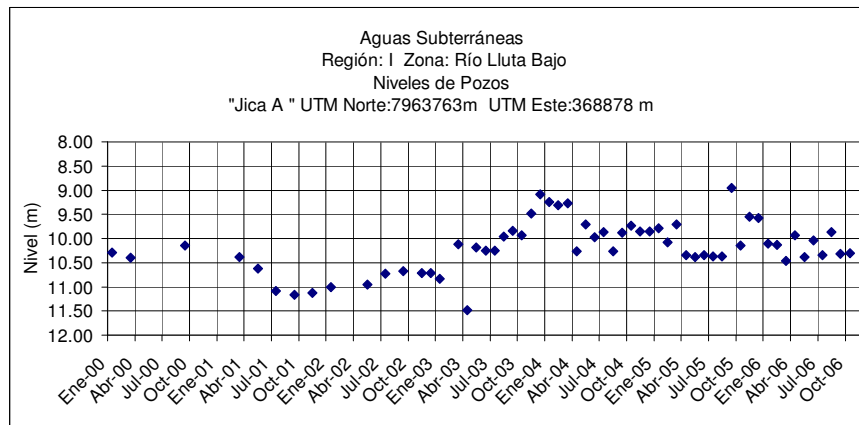
## Informe de Aguas Subterráneas

Niveles de Pozos en metros

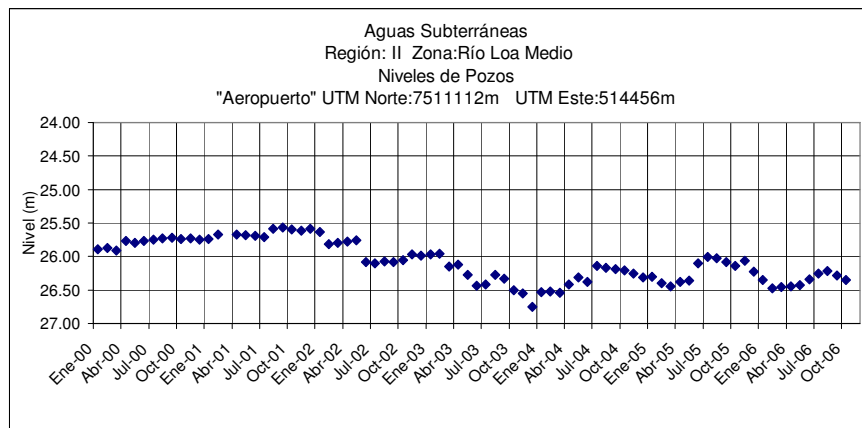
\*Gráficos de últimos cinco años.



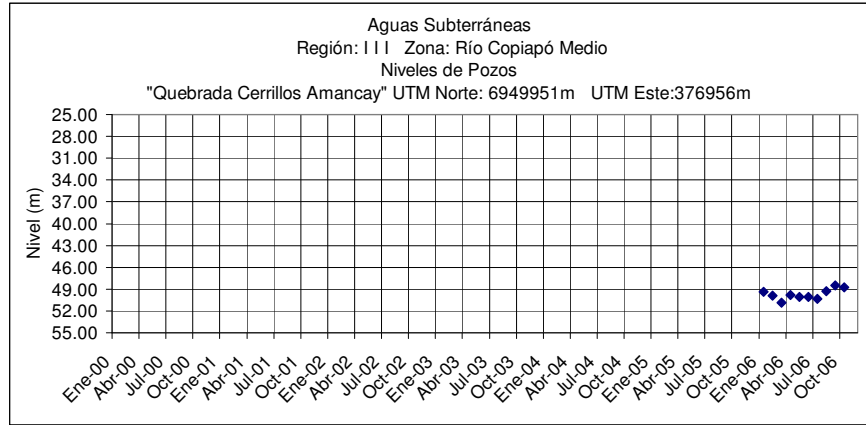
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	18.78	18.86	18.84	26.30	21.59	22.01	22.16	22.01	22.20	23.16	23.13	23.05



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	9.55	9.58	10.11	10.13	10.46	9.94	10.39	10.04	10.35	9.87	10.32	10.30

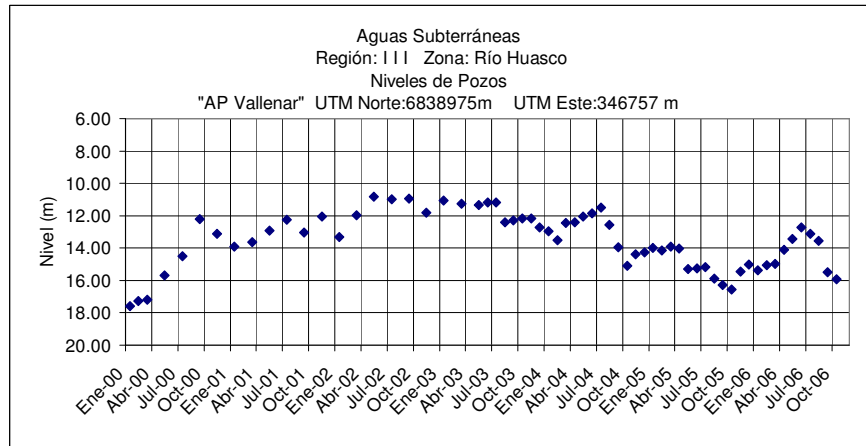


	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	26.06	26.23	26.35	26.47	26.46	26.45	26.43	26.34	26.25	26.22	26.28	26.35

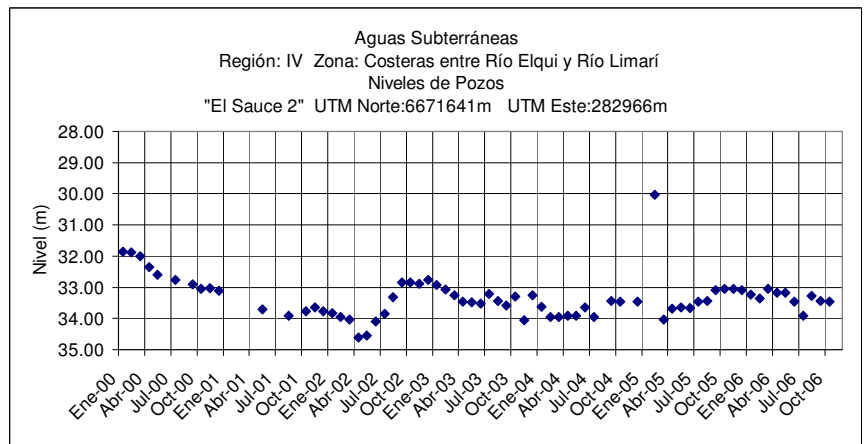


	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	.	.	49.40	49.89	50.87	49.85	50.08	50.06	50.36	49.30	48.47	48.77

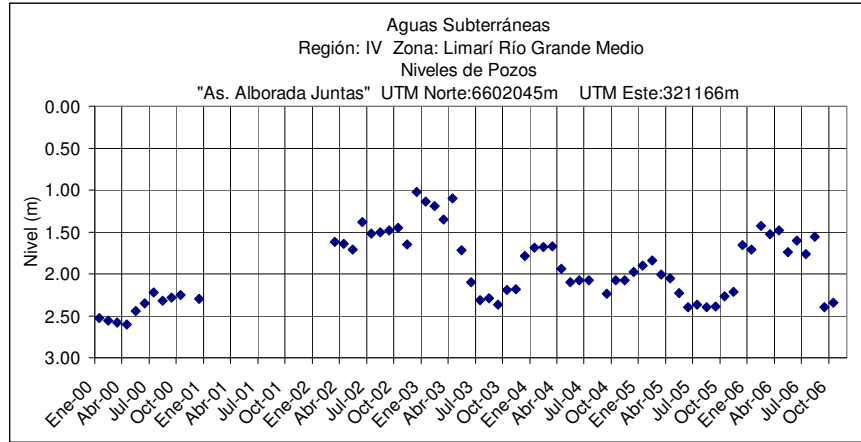
Nuevo pozo, reemplaza a pozo "Quebrada Cerrillos" (Seco).



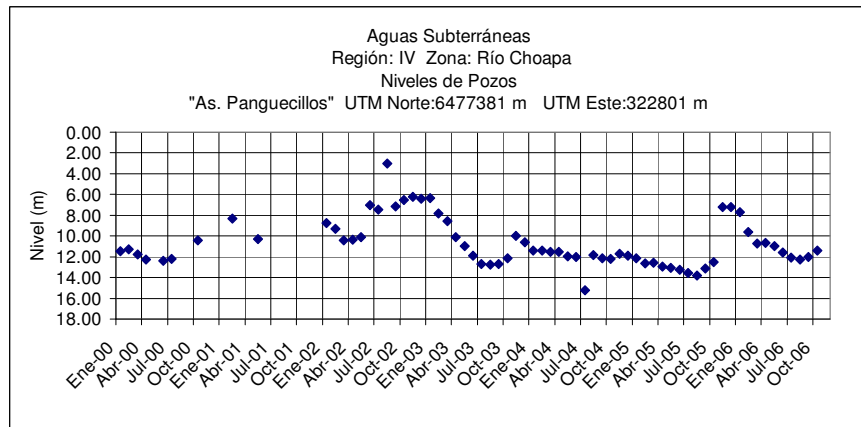
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	15.45	15.03	15.37	15.07	14.97	14.09	13.42	12.73	13.11	13.57	15.50	15.92



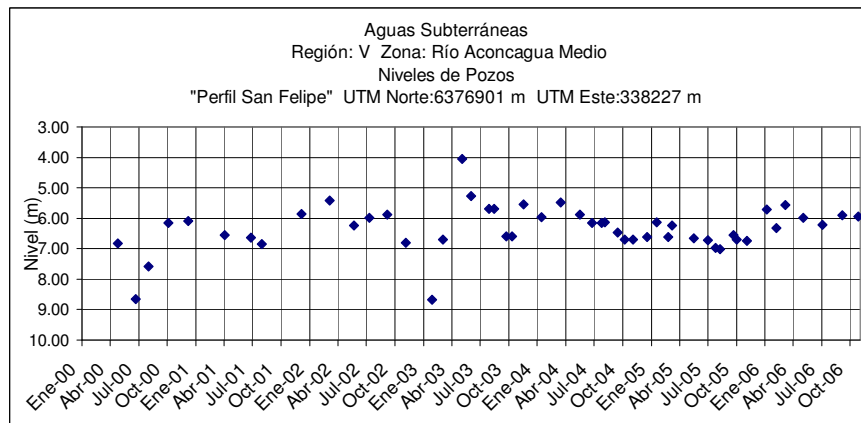
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	33.05	33.10	33.23	33.36	33.04	33.18	33.17	33.47	33.92	33.27	33.45	33.47



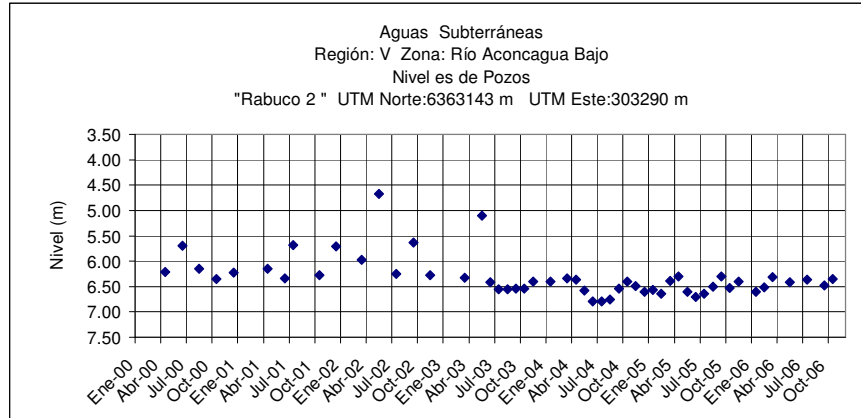
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	2.21	1.66	1.71	1.43	1.53	1.48	1.74	1.60	1.76	1.56	2.40	2.34



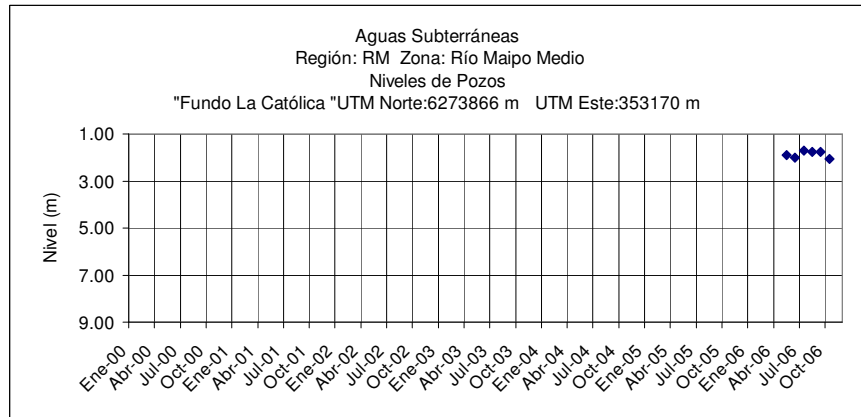
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	7.24	7.21	7.68	9.61	10.72	10.68	10.96	11.58	12.08	12.26	12.00	11.40



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	6.75	.	5.71	6.33	5.57	.	5.99	.	6.22	.	5.91	5.95

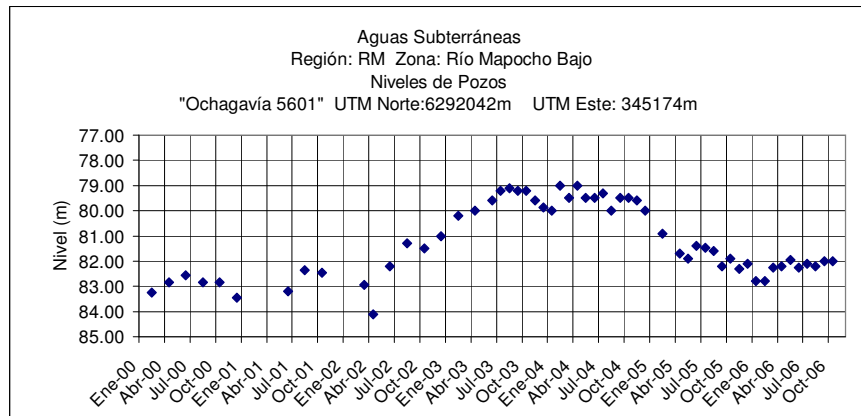


	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	6.40	.	6.61	6.52	6.32	.	6.42	.	6.37	.	6.48	6.35

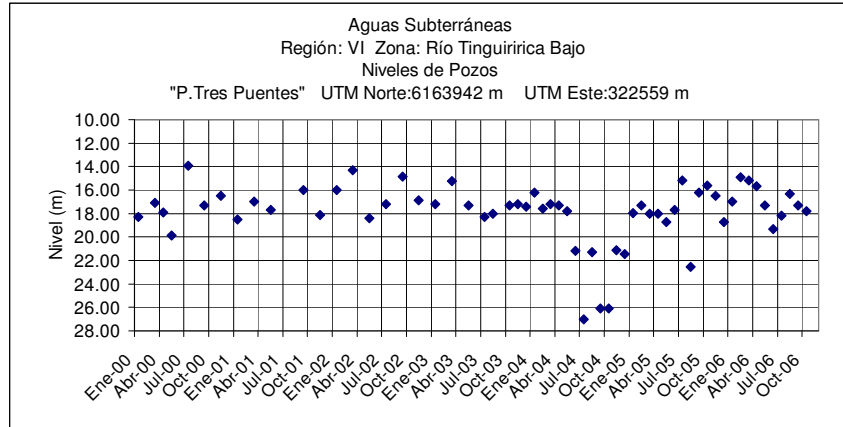


	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	.	.	.	.	.	.	1.90	2.00	1.70	1.75	1.75	2.05

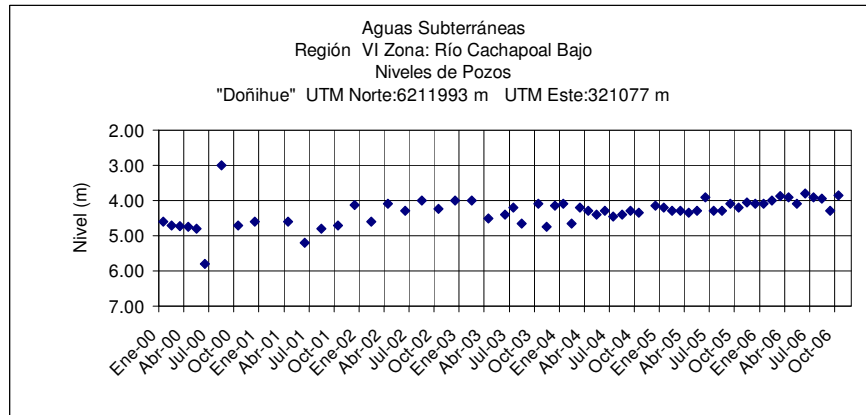
Nuevo pozo, reemplaza a pozo "El Cruceral" (embancado).



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	82.30	82.10	82.80	82.80	82.25	82.20	81.95	82.25	82.10	82.20	82.00	82.00



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	16.50	18.75	17.00	14.90	15.20	15.70	17.30	19.30	18.20	16.30	17.30	17.80



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2005-2006	4.05	4.10	4.10	4.00	3.88	3.90	4.10	3.80	3.90	3.95	4.30	3.85