



## RESULTADOS DE CAMPO Y FISICOQUÍMICOS

Identificación	Tipo	Coordenadas			Temperatura Ambiente (°C)	Temperatura de la Muestra (°C)	pH	CE (µs/cm)	OD (mg/L)	Eh (mV)
		X	Y	Altitud						
Casso	Pozo	19°23.262	099°11.730	2315	28.0	18.1	7.77	205	6.10	452
Olivar de los Padres	Pozo	19°20.435	099°12.607	2308		16.9	7.54	175	6.40	349
Manantial San Bartolo Ameyalco	Manantial	19°19.608	099°16.348	2648	14.4	11.6	6.89	120	8.10	591
Totolapa	Pozo	19°21.810	099°16.348	2599	22.6	17.6	7.32	193	6.60	348
Planta Potabilizadora Avenida del Castillo	Pozo	19°29.947	099°04.519	2210		31.5	6.40	2580	0.03	154
Peñon de los Baños	Pozo	19°26.284	099°05.201	2250	20.7	43.6	6.60	4190	4.80	189
Jardines del Pedregal No.5	Pozo	19°28.418	099°05.726	2253		27.6	6.19	1830	0.05	155
Panamericana	Pozo	19°28.698	099°08.719	2256	28.0	23.6	6.75	966	0.07	95
La Pastora	Pozo	19°31.724	099°10.232	2174	24.9	28.7	6.33	5660	0.31	161
Tecomitl No.2	Pozo	19°22.504	099°22.504	2254	25.0	29.2	7.41	1298		32
Agrícola Oriental No.5	Pozo	19°22.906	099°04.882	2264	28.7	25.0	7.08	2200	0.14	-23
Santa Catarina No.2	Pozo	19°19.479	099°03.827	2260	30.6	20.8	7.70	1525	0.08	71
Panteón Civil No.2	Pozo	19°20.338	099°04.487	2261	24.1	23.1	7.40	1132	0.12	71
Loma Estrella No.2	Pozo	19°19.579	099°05.519	2269		20.3	7.48	1207	1.15	230
Limantitla	Pozo	19°16.916	099°10.458	2318		13.0	7.54	167	6.68	550
Manantial Peña Pobre	Manantial	19°17.727	099°11.190	2335		13.9	7.61	229	8.15	919
San Lorenzo Tezonco	Pozo	19°22.739	099°05.091	2243	23.8	44.3	7.14	1530	0.09	86
Manantial Cacahuamilpa	Manantial	18°40.435	099°30.716	1177		22.8		653	2.05	433
Manantial Santa Teresa	Manantial	18°41.094	099°29.227	1124		25.1		563	4.43	
Manantialito Santa Teresa	Manantial	18°41.094	099°29.227	1124		23.4		437	0.40	
Manantial Palo Boloro	Manantial	18°46.015	099°14.312	1482	31.2	21.7	6.597	2240	1.08	120
San Gabriel Las Palmas	Pozo	18°36.785	099°21.044	920	24.7	28.8	6.95	952	0.54	262
San Lorenzo Tezonco	Pozo	19°22°739	099°05.091	2243	27.1	36.8	7.252	1633	0.24	-63
Peñon de los Baños	Pozo	19°26.286	099°05.200	2257	16.6	45.6	6.292	4170	0.61	94.68
Manantial las Estacas	Manantial	18°44.009	099°06.817	991	24.3	22.7	6.934	1188	5.04	360.06
OBSERVACIONES										
Aprovechamientos muestreados en 2013										
Aprovechamientos muestreados en 2014 (Aniones y metales en proceso de análisis)										

Identificación	Alcal. Tot. (mg/L)	HCO <sub>3</sub> (mg/L)	δ18O (‰)	δD (‰)	F (mg/L)	Cl (mg/L)	NO <sub>2</sub> (como N) (mg/L)	Br (mg/L)	NO <sub>3</sub> (como N) (mg/L)	PO <sub>4</sub> (como (mg/L)
Casso	98	120	-10.5	-73	0.08	3.88	< 0.01	< 0.03	1.2	< 0.02
Olivar de los Padres	98	120	-10.7	-74	0.05	1.76	< 0.01	< 0.03	0.61	< 0.02
Manantial San Bartolo Ameyalco	58	71	-10.7	-73	0.05	1.01	0.04	< 0.03	0.67	< 0.02
Totolapa	88	107	-10.5	-74	0.07	4.17	0.05	< 0.03	1.3	< 0.02
Planta Potabilizadora Avenida del Castillo	1392	1698	-9.2	-66	< 0.01	402	< 0.01	0.85	< 0.01	< 0.02
Peñon de los Baños	1278	1559	-9.1	-67	< 0.1	695	< 0.1	1.42	29	< 0.2
Jardines del Pedregal No.5	672	820	-9.4	-65	0.78	224	< 0.1	< 0.3	28.7	< 0.2
Panamericana	456	556	-10.1	-71	< 0.05	38.3	< 0.05	< 0.1	12.7	< 0.1
La Pastora	1280	1562	-8.0	-68	< 1	1110	< 1	< 3	319	< 2
Tecomitl No.2	440	537	-10.0	-69	0.22	153	< 0.05	0.52	13.6	< 0.1
Agrícola Oriental No.5	832	1015	-9.3	-63	0.14	266	4.13	0.73	68.1	< 0.2
Santa Catarina No.2	520	634	-8.8	-62	0.28	131	0.64	0.46	30.1	< 0.1
Panteón Civil No.2	304	371	-10.0	-70	0.34	94.1	< 0.05	< 0.1	30.6	< 0.1
Loma Estrella No.2	194	237	-10.0	-70	0.36	81.8	< 0.05	< 0.1	28.6	< 0.1
Limantitla	56	68	-10.9	-74	0.47	5.84	0.04	< 0.03	2.19	0.08
Manantial Peña Pobre	56	68	-10.1	-69	0.33	13.9	< 0.01	< 0.03	5.49	0.23
San Lorenzo Tezonco	395	395	-9.3	-63	0.25	228.10	<0.04	0.26	<0.04	<0.08
Manantial Cacahuamilpa										
Manantial Santa Teresa										
Manantialito Santa Teresa										
Manantial Palo Boloro										
San Gabriel Las Palmas										
San Lorenzo Tezonco										
Peñon de los Baños										
Manantial las Estacas										

Identificación	SO <sub>4</sub> (mg/L)	Na (µg/L)	Li (µg/L)	Be (µg/L)	Mg (µg/L)	Al (µg/L)	Si (µg/L)	K (µg/L)	Ca (µg/L)	Sc (µg/L)
Casso	10.1	15400	10	< 1	9190	< 20	29700	3870	11000	< 10
Olivar de los Padres	2.36	9790	10	< 1	8720	< 20	27500	3360	10200	< 10
Manantial San Bartolo Ameyalco	5.37	4720	< 50	< 5	6540	< 100	18700	< 2000	< 40000	< 50
Totolapa	7.97	13000	< 20	< 2	9120	< 40	28400	3050	< 10000	< 20
Planta Potabilizadora Avenida del Castillo	7.58	259000	800	< 1	198000	30	62700	47300	208000	19
Peñon de los Baños	22.2	384000	1540	< 1	188000	< 20	75900	77900	204000	22
Jardines del Pedregal No.5	1.41	150000	240	< 1	97800	< 20	52500	21200	88900	15
Panamericana	5.41	74900	33	< 1	47400	< 20	38700	17100	64700	12
La Pastora	92	845000	7240	< 1	143000	33	58900	76800	149000	18
Tecomitl No.2	2.8	216000	105	< 1	19500	< 20	35500	17000	21500	10
Agrícola Oriental No.5	< 0.3	266000	250	< 1	81800	< 20	40300	33900	84300	13
Santa Catarina No.2	99.6	236000	102	< 2	47800	< 40	31000	12900	39100	< 20
Panteón Civil No.2	156	120000	102	< 2	48900	< 40	31300	11300	36000	< 20
Loma Estrella No.2	324	109000	120	< 1	67700	< 20	27500	11500	55500	< 10
Limantitla	10.8	14100	19	< 1	8020	< 20	25900	3210	< 7000	< 10
Manantial Peña Pobre	24.2	19700	< 20	< 2	7150	< 40	20600	3250	< 10000	< 20
San Lorenzo Tezonco	41.68	266000	301	< 0.1	16280	758.7	74080	34200	23600	11.7
Manantial Cacahuamilpa										
Manantial Santa Teresa										
Manantialito Santa Teresa										
Manantial Palo Bolero										
San Gabriel Las Palmas										
San Lorenzo Tezonco										
Peñon de los Baños										
Manantial las Estacas										

Identificación	Ti (µg/L)	V (µg/L)	Cr (µg/L)	Mn (µg/L)	Fe (µg/L)	Co (µg/L)	Ni (µg/L)	Cu (µg/L)	Zn (µg/L)	Ga (µg/L)
Casso	7.1	6.5	< 5	< 1	< 100	< 0.05	< 3	2	11.3	< 0.1
Olivar de los Padres	6.2	7.1	< 5	< 1	< 100	< 0.05	< 3	< 2	< 5	< 0.1
Manantial San Bartolo Ameyalco	5.5	< 5	< 30	< 5	< 500	< 0.3	< 20	< 10	< 30	< 0.5
Totolapa	7.4	5.2	< 10	< 2	< 200	< 0.1	< 6	< 4	< 10	< 0.2
Planta Potabilizadora Avenida del Castillo	15.2	< 1	< 5	1390	3360	8.23	< 3	< 2	8.4	< 0.1
Peñon de los Baños	17.7	< 1	< 5	1880	1060	6.39	3.5	< 2	12	0.1
Jardines del Pedregal No.5	12.2	< 1	< 5	196	4250	0.691	< 3	5.5	23.8	< 0.1
Panamericana	8.6	1.6	< 5	1100	290	1.22	< 3	< 2	< 5	< 0.1
La Pastora	15.9	26	< 5	2020	250	8.88	5.4	2.3	23.5	0.1
Tecomitl No.2	9.3	1.1	< 5	167	360	0.111	< 3	< 2	< 5	0.1
Agrícola Oriental No.5	10.2	< 1	< 5	429	920	< 0.05	< 3	< 2	< 5	< 0.1
Santa Catarina No.2	11.6	< 2	< 10	660	270	0.98	6	< 4	< 10	< 0.2
Panteón Civil No.2	9	< 2	< 10	446	500	0.228	< 6	< 4	10.4	< 0.2
Loma Estrella No.2	6.8	3.4	< 5	37.3	< 100	< 0.05	< 3	2.4	< 5	< 0.1
Limantitla	6	54.5	< 5	< 1	< 100	< 0.05	< 3	< 2	< 5	< 0.1
Manantial Peña Pobre	4.8	35.7	< 10	< 2	< 200	< 0.1	< 6	< 4	< 10	< 0.2
San Lorenzo Tezonco	11.2	2.3	5.8	221	1557	0.69	3	55	31	0.2
Manantial Cacahuamilpa										
Manantial Santa Teresa										
Manantialito Santa Teresa										
Manantial Palo Bolero										
San Gabriel Las Palmas										
San Lorenzo Tezonco										
Peñon de los Baños										
Manantial las Estacas										

Identificación	Ge (µg/L)	As (µg/L)	Se (µg/L)	Rb (µg/L)	Sr (µg/L)	Y (µg/L)	Zr (µg/L)	Nb (µg/L)	Mo (µg/L)	Ag (µg/L)
Casso	0.1	0.57	< 2	7.63	109	0.03	0.2	0.21	< 1	< 2
Olivar de los Padres	0.1	0.45	< 2	10.1	109	< 0.03	0.1	0.08	< 1	< 2
Manantial San Bartolo Ameyalco	< 0.5	< 1	< 10	2.65	121	0.15	1	0.25	< 5	< 10
Totolapa	0.2	< 0.6	< 4	7.8	116	0.08	0.4	< 0.1	< 2	< 4
Planta Potabilizadora Avenida del Castillo	0.4	6.58	< 2	64.8	1960	0.22	0.5	0.06	1.9	< 2
Peñon de los Baños	1.4	2.61	< 2	124	2180	0.08	0.5	0.05	17	< 2
Jardines del Pedregal No.5	0.2	1.04	< 2	25	739	0.1	0.3	0.06	< 1	< 2
Panamericana	0.1	0.76	< 2	22.4	683	0.09	0.1	< 0.05	1.6	< 2
La Pastora	2.6	2	5.1	130	2500	0.25	2.7	0.07	3	< 2
Tecomitl No.2	1.35	0.37	< 2	20	209	< 0.03	0.45	< 0.05	2.7	< 2
Agrícola Oriental No.5	1.4	< 0.3	2.7	33.9	824	< 0.03	0.2	< 0.05	< 1	< 2
Santa Catarina No.2	0.2	8.98	< 4	16.3	459	< 0.06	0.6	< 0.1	5.2	< 4
Panteón Civil No.2	0.8	1	< 4	13.5	370	0.06	0.6	< 0.1	< 2	< 4
Loma Estrella No.2	0.2	5.28	2.6	14.5	603	< 0.03	0.2	< 0.05	3.5	< 2
Limantitla	0.1	4.98	< 2	6.56	65.9	< 0.03	0.2	< 0.05	3.7	< 2
Manantial Peña Pobre	< 0.2	0.9	< 4	9.02	90.7	< 0.06	0.6	< 0.1	< 2	< 4
San Lorenzo Tezonco	2.7	24.70	6	68.6	2709	0.8605	0.3	0.01	26	<0.2
Manantial Cacahuamilpa										
Manantial Santa Teresa										
Manantialito Santa Teresa										
Manantial Palo Bolero										
San Gabriel Las Palmas										
San Lorenzo Tezonco										
Peñon de los Baños										
Manantial las Estacas										

Identificación	Nd (µg/L)	Sm (µg/L)	Eu (µg/L)	Gd (µg/L)	Tb (µg/L)	Dy (µg/L)	Ho (µg/L)	Er (µg/L)	Tm (µg/L)	Yb (µg/L)
Casso	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Olivar de los Padres	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Manantial San Bartolo Ameyalco	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Totolapa	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.04
Planta Potabilizadora Avenida del Castillo	0.04	< 0.01	0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.03
Peñon de los Baños	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01
Jardines del Pedregal No.5	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Panamericana	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
La Pastora	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.03
Tecomitl No.2	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Agrícola Oriental No.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Santa Catarina No.2	0.06	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Panteón Civil No.2	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Loma Estrella No.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Limantitla	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Manantial Peña Pobre	0.04	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
San Lorenzo Tezonco	1.37	0.32	0.07	0.27	0.04	0.17	0.03	0.08	0.01	0.07
Manantial Cacahuamilpa										
Manantial Santa Teresa										
Manantialito Santa Teresa										
Manantial Palo Bolero										
San Gabriel Las Palmas										
San Lorenzo Tezonco										
Peñon de los Baños										
Manantial las Estacas										

Identificación	Lu (µg/L)	Hf (µg/L)	Ta (µg/L)	W (µg/L)	Hg (µg/L)	Tl (µg/L)	Pb (µg/L)	Bi (µg/L)	Th (µg/L)	U (µg/L)
Casso	< 0.01	0.02	< 0.01	< 0.2	< 2	< 0.01	1	< 3	0.01	0.701
Olivar de los Padres	< 0.01	< 0.01	< 0.01	< 0.2	< 2	< 0.01	1	< 3	< 0.01	1.02
Manantial San Bartolo Ameyalco	< 0.05	< 0.05	< 0.05	< 1	< 10	< 0.05	< 0.5	< 20	0.08	0.095
Totolapa	< 0.02	< 0.02	< 0.02	< 0.4	< 4	< 0.02	< 0.2	< 6	< 0.02	0.492
Planta Potabilizadora Avenida del Castillo	< 0.01	0.02	< 0.01	< 0.2	< 2	0.315	4	< 3	< 0.01	3.62
Peñon de los Baños	< 0.01	0.01	< 0.01	< 0.2	< 2	0.079	1	< 3	< 0.01	19
Jardines del Pedregal No.5	< 0.01	< 0.01	< 0.01	< 0.2	< 2	0.014	1	< 3	< 0.01	0.019
Panamericana	< 0.01	< 0.01	< 0.01	< 0.2	< 2	0.049	< 0.1	< 3	< 0.01	18.4
La Pastora	< 0.01	0.08	< 0.01	< 0.2	< 2	0.085	1	< 3	< 0.01	4.57
Tecomitl No.2	< 0.01	0.01	< 0.01	1	< 2	< 0.01	< 0.1	< 3	< 0.01	< 0.01
Agrícola Oriental No.5	< 0.01	< 0.01	< 0.01	< 0.2	< 2	< 0.01	< 0.1	< 3	< 0.01	< 0.01
Santa Cantarina No.2	< 0.02	< 0.02	< 0.02	2	< 4	< 0.02	< 0.2	< 6	< 0.02	3.05
Panteón Civil No.2	< 0.02	< 0.02	< 0.02	< 0.4	< 4	< 0.02	< 0.2	< 6	< 0.02	0.206
Loma Estrella No.2	< 0.01	< 0.01	< 0.01	< 0.2	< 2	0.023	< 0.1	< 3	< 0.01	3.02
Limantitla	< 0.01	< 0.01	< 0.01	< 0.2	< 2	< 0.01	1	< 3	< 0.01	0.107
Manantial Peña Pobre	< 0.02	< 0.02	< 0.02	< 0.4	< 4	< 0.02	< 0.2	< 6	< 0.02	0.174
San Lorenzo Tezonco	0.01	0.01	0.001	1.4	< 0.2	0.02	8.1	< 0.3	0.40	1.37
Manantial Cacahuamilpa										
Manantial Santa Teresa										
Manantialito Santa Teresa										
Manantial Palo Bolero										
San Gabriel Las Palmas										
San Lorenzo Tezonco										
Peñon de los Baños										
Manantial las Estacas										