

Table 1: Gaging stations and basin geometric characteristics in Papaloapan river basin.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Gaging station	Stream	Latitude	Longitude	Mean annual precipitation ¹ (mm)	Drainage area (km ²)	Hydraulic length (km)	Aquifer width (km)
Achotal	La Trinidad	17° 46'	95° 09'	1620	2333	124.4	18.7
Angel R. Cabadas	Tecolapa	18° 35'	95° 26'	2255	125	24.4	5.1
Azueta	Tesechoacan	18° 05'	95° 43'	1533	1656	83.7	19.8
Bellaco	Lalana	17° 46'	95° 11'	1587	2917	115.5	25.3
Cuatotolapan	San Juan	18° 09'	95° 18'	1305	7090	167.4	42.3
Jacatepec	Valle Nacional	17° 52'	96° 12'	3906	1117	58.3	19.2
La Estrella	Usila	17° 55'	96° 26'	4805	774	34.1	22.7
Monterrosa	Cajones	17° 48'	95° 56'	2288	2870	111.6	25.7
Quiotepec	Grande	17° 54'	96° 59'	636	4832	76.3	63.3
Xiquila	Xiquila	18° 02'	97° 09'	354	1073	55.1	19.5

¹ Annual isohyets of Mexico, 1931-90, Regions 28 (Papaloapan) and 29 (Coatzacoalcos).

Table 2: Basin aquifer characteristics of selected streams in Papaloapan river basin.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Gaging station	Stream	Time	of	storage ¹	Basin	Hydraulic	diffusivity
		\bar{x}	s	C_v	constant		
		(d)	(d)		(d ⁻¹)	(km ² d ⁻¹)	(m ² s ⁻¹)
Achotal	La Trinidad	51.28	8.51	0.166	0.00790	0.694	8.037
Angel R. Cabadas	Tecolapa	46.03	9.30	0.202	0.00880	0.058	0.666
Azueta	Tesechoacan	57.42	8.35	0.145	0.00706	0.690	7.983
Bellaco	Lalana	53.97	14.93	0.277	0.00751	1.196	13.845
Cuatotolapan	San Juan	69.12	16.20	0.234	0.00586	2.627	30.403
Jacatepec	Valle Nacional	35.20	9.54	0.271	0.01151	1.056	12.228
La Estrella	Usila	25.05	5.21	0.208	0.01618	2.079	24.061
Monterrosa	Cajones	23.49	6.04	0.257	0.01725	2.850	32.988
Quiotepec	Grande	26.00	6.94	0.267	0.01559	15.619	180.778
Xiquila	Xiquila	116.64	18.28	0.157	0.00347	0.329	3.811

¹ \bar{x} = mean; s = standard deviation; C_v = coefficient of variation.

Table 3: Predominant rock types of subbasins in Papaloapan river basin.¹

(1)	(2)	(3)
Gaging station	Stream	Predominant rock types
Achotal	La Trinidad	Sandstone, schist, calcareous sandstone and limestone
Angel R. Cabadas	Tecolapa	Basalt, basaltic tuff
Azueta	Tesechoacan	Sandstone, calcareous sandstone, limestone and conglomerate
Bellaco	Lalana	Sandstone, schist, calcareous sandstone and conglomerate
Cuatotolapan	San Juan	Sandstone, limestone, schist, calcareous sandstone and conglomerate
Jacatepec	Valle Nacional	Schist, calcareous sandstone and limestone
La Estrella	Usila	Schist, calcareous sandstone and limestone
Monterrosa	Cajones	Schist, andesite, calcareous sandstone, limestone and monzonite
Quiotepec	Grande	Metamorphosed granite, schist, limestone, shale, calcareous sandstone, sandstone and conglomerate
Xiquila	Xiquila	Limestone, sandstone, conglomerate and andesite

¹ Orizaba (E14-6), Oaxaca (E14-9), Coatzacoalcos (E15-4), and Minatitlan (E15-7) maps.

Table 4: Predominant rock types grouped in terms of time of storage.

(1)	(2)	(3)	(4)
Group	Gaging station	Time of storage (d)	Predominant rock types
I	Jacatepec, La Estrella, Monterrosa and Quiotepec	23.5-35.2	Schist, metamorphosed granite, calcareous sandstone, limestone, sandstone, shale
II	Angel R. Cabadas	46.0	Basalt, basaltic tuff
III	Achotal, Azueta, Bellaco and Cuatotolapan	51.3 - 69.1	Sandstone, calcareous sandstone, limestone, conglomerate, schist
IV	Xiquila	116.6	Limestone, sandstone, conglomerate, andesite

Table 5: Pumping stations, location, and hydrogeologic characteristics in Papaloapan river basin¹.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pumping station	Well No.	Latitude	Longitude	Trans- missivity (m^2s^{-1})	Coefficient of storage	Hydraulic diffusivity (m^2s^{-1})
San Jose Independencia	03	18° 23'	96° 03'	0.0550	0.00250	22.000
Cosamaloapan	05	18° 22'	95° 48'	0.0021	0.01000	0.210
Paso Carretas	09	18° 41'	96° 08'	0.0470	0.06800	0.690
Rio Moreno	11	18° 38'	96° 14'	0.0260	0.00790	3.290
Cuyucuenda	13	18° 47'	96° 16'	0.0082	0.00043	19.070
Piedras Negras	14	18° 46'	96° 10'	0.0460	0.09400	0.489
Ignacio de la Llave	15	18° 43'	95° 59'	0.0043	0.09400	0.046

¹ Data obtained from the National Water Commission, Jalapa, Mexico.