

**Table A 4. Selected data for 19 key wells in the lower Mesilla Basin area, TX, including location, depth, water table, major chemical constituents, hydrostratigraphic and aquifer units, and data sources. (footnote 1)**

Location number	Depth of well (ft)	Altitude land surface (bottom hole) (ft)	Water table depth (elev.) (ft)	Water sample, depth interval (ft)	Calcium, dissolved (mg/L) as Ca	Magnesium, dissolved (mg/L) as Mg	Sodium, dissolved (mg/L) as Na	Potassium, dissolved (mg/L) as K	Bicarbonate, (mg/L) as HCO <sub>3</sub>	Sulfate, dissolved (mg/L) as SO <sub>4</sub>	Chloride, dissolved (mg/L) as Cl	dissolved solids (mg/L)	Hydrostratigraphic unit (footnote 2)	Aquifer system	References (footnote 3)
JL-49-03-322	1,206	3,787 (2,581)	13 (3,774)	195 - 238 306 - 349 435 - 478 562 - 605 754 - 797 1015 - 1058	21 16 20 23 16 18	3.80 2.70 2.80 3.80 2.10 1.50	110 99 104 181 114 90	2.3 - - - - 23.0	120 106 128 218 108 108	112 96 109 184 115 87	69 55 48 68 62 51	440 356 374 603 384 338	MSF MSF MSF MSF MSF MSF	medial medial medial medial medial medial	4, 11 (Q43) - - - - -
JL-29-04-109	1,705	3,790 (2,085)	40 (3,750)	149 23 - 258 313 - 334 426 - 440 495 - 521 576 - 600 675 - 701 846 - 872 967 - 993 1057 - 1083 1194 - 1218	8784 37 21 31 18 14 23 80 19 20 12	5,215.00 13.00 1.00 1.00 1.00 0.90 0.00 1.00 0.20 0.00 0.50	- - - - - - - - - - -	- - - - - - - - - - -	2700 210 164 164 130 124 130 350 105 120 205	6240 210 137 147 64 48 45 63 43 49 90	23680 912 629 697 444 366 376 615 319 357 737	MSF MSF MSF MSF MSF MSF MSF to LSF LSF LSF LSF LSF RA/SH to 1,271'Ti,TI	shallow medial medial medial medial medial - deep deep deep deep - -	4, 11 (Q178) - - - - - - - - - - - -	
JL-49-04-113	1,201	3,783 (2,583)	46 (3,737)	88 - 118 184 - 209 275 - 300 394 - 419 513 - 538 623 - 648 739 - 764 845 - 870 965 - 990 1116 - 1141	23 16 31 29 15 20 15 6 4 3	6.00 3.00 4.00 4.00 8.00 8.00 7.00 8.00 0.00 0.00	- - - - - - - - - -	117 172 110 143 76 98 88 79 82 83	130 131 202 174 137 161 99 57 99 42	96 43 96 92 34 33 39 29 28 26	619 607 771 686 428 506 418 405 334 265	MSF MSF MSF MSF MSF MSF LSF LSF LSF LSF	medial medial medial medial medial medial deep deep deep deep	10, 12 - (Q197) - - - - - - - -	
JL-49-04-131	620	3,862 (3,242)	85 (3,777)	180 - 200 355 - 410 575 - 620	42 42 26	20.00 19.00 13.00	236 316 301	29.0 28.0 6.8	154 232 203	160 184 277	315 384 232	918 1110 992	MSF MSF LSF to 590'/K	medial medial? deep? - -	4, 11 Q25 - -
JL-49-04-169	631	3,823 (3,192)	50 (3,773)	356 - 372 476 - 492 533 - 550 603 - 621	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	675 673 691 539	MSF MSF-LSF LSF LSF	medial - deep deep	12 (La Tuna) - -
JL-49-04-176	1,006	3,791 (2,785)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	RAMSF/ LSF to 995' K	- - -	12 (Mtn. Pass) -

Location number	Depth of well (ft)	Altitude land surface (bottom hole) (ft)	Water table depth (elev.) (ft)	Water sample, depth interval (ft)	Calcium, dissolved (mg/L) as Ca	Magnesium, dissolved (mg/L) as Mg	Sodium, dissolved (mg/L) as Na	Potassium, dissolved (mg/L) as K	Bicarbonate, (mg/L) as HCO <sub>3</sub>	Sulfate, dissolved (mg/L) as SO <sub>4</sub>	Chloride, dissolved (mg/L) as Cl	dissolved solids (mg/L)	Hydrostratigraphic unit (footnote 2)	Aquifer system	References (footnote 3)
JL-49-04-401	963	3,774 (2,811)	41 (3,733)	274 - 300 487 - 513 666 - 692 847 - 873 900 938 - 963	12.0 14.0 10.0 15.0 4.8 70.0	3.00 1.00 3.00 4.00 0.00 7.00	- - - - 82 -	- - - - 0.8 -	- - - - 76 -	88 96 72 144 73 400	50 90 50 105 38 730	190 267 365 774 265 1943	MSF LSF LSF LSF LSF LSF to 965'? K?	medial deep deep deep deep - -	2, 4, 10 (Q189) - - - - - -
JL-49-04-402	1,201	3,775 (2,574)	36 (3,739)	189 - 209 280 - 300 369 - 389 470 - 493 590 - 612 666 - 686 786 - 806 876 - 896 969 - 989 1060 - -	- 17.0 - 8.8 - - - 34.0 - 5.0 - -	- 0.80 0.00 - - - - 0.00 - 0.00 - -	136 121 114 80 89 151 90 87 95 - - -	- - - 2.2 - - - 1.2 - - - -	108 104 100 82 93 104 98 106 113 - - -	119 73 - - - - 67 - 92 - -	93 70 62 39 40 80 39 30 29 39 - -	<796 427 <609 280 <464 <739 <455 271 <432 292 - -	MSF MSF MSF MSF MSF LSF LSF LSF LSF LSF LSF to 1,090' K	medial medial medial medial medial deep deep deep deep deep - -	2, 4, 10 (Q172) - - - - - - - - - - -
JL-49-04-421	1,100	3,768 (2,668)	10 (3,758)	- -	- -	- -	- -	- -	- -	- -	- -	- -	RA/MSF/LSF -	- -	12 (Q202)
JL-49-04-433	1,200	3,770 (2,570)	- - - -	257 - 300 385 - 428 532 - 575 715 - 758	24 22 13 14	2.70 3.10 1.70 1.10	218 175 96 96	4.5 4.1 3.3 -	114 112 99 108	259 202 104 93	130 108 47 43	724 601 360 354	MSF MSF MSF LSF	medial medial medial deep	2, 4 (Q63) - - -
JL-49-04-441	874	3,900 (3,026)	134 (3,766)	210 - 230 336 - 366 404 - 434 619 - 649 - -	53 35 60 33 - -	30.00 18.00 29.00 12.00 - -	257 244 207 312 - -	13.0 11.0 - - -	184 186 203 254 - -	293 238 213 217 - -	250 205 228 265 - -	999 863 859 998 - -	MSF MSF LSF LSF LSF to 820' K (sh&gyp)	medial medial deep deep - -	2, 4, 10 (Q72) - - - - -
JL-49-04-481	940	3,777 (2,837)	53 (3,724)	45 - 50 149 - 154 327 - 332 798 - 803 - -	72.0 54.0 21.0 7.5 - -	31.00 4.30 1.50 0.03 - -	190 230 120 93 - -	10.0 4.8 3.5 1.4 - -	185 143 64 75 - -	300 270 120 79 - -	150 140 90 39 - -	890 840 430 290 - -	RA MSF MSF LSF LSF 8 to 925'/K	shallow medial medial deep - -	7, 12 (CWF-1D) - - - - -
JL-49-04-501	320	4,023 (3,703)	218 (3,805)	218 - 279 - -	60 - -	30.00 - -	236 - -	12.0 - -	216 - -	269 - -	232 - -	983 - -	MSF? SF to 280' K	upper - -	2, 4, 10 (Q73) - -

Location number	Depth of well (ft)	Altitude land surface (bottom hole) (ft)	Water table depth (elev.) (ft)	Water sample, depth interval (ft)	Calcium, dissolved (mg/L) as Ca	Magnesium, dissolved (mg/L) as Mg	Sodium, dissolved (mg/L) as Na	Potassium, dissolved (mg/L) as K	Bicarbonate, (mg/L) as HCO <sub>3</sub>	Sulfate, dissolved (mg/L) as SO <sub>4</sub>	Chloride, dissolved (mg/L) as Cl	dissolved solids (mg/L)	Hydrostratigraphic unit (footnote 2)	Aquifer system	References (footnote 3)
JL-49-04-723	1,074	3,757 (2,683)	flowed 1922	10 260 470 1007 -	-	-	-	-	-	-	-	1004 1800 3740 4542	RA MSF(FH) MSF(FH) KP LSF to 920' K	shallow medial medial	1, 2, 4 (Q138) (Lippincott)
JL-49-12-203	1,245	3,900 (2,655)	-	-	-	-	-	-	-	-	-	-	USF to 208'/K,Ti	-	2, 4 (Q159)
JL-49-12-204	540	3,980 (3,440)	246 (3,734)	382 540	69	57.00	108	-	246 256	166	187 112	782 <1160	USF to 382'/K	upper	2, 4 (Q160)
JL-49-12-301	425	4,106 (3,681)	-	260 - 425	-	-	-	-	-	285	53	628	K sandstone VA/USF to 260'/K	-	2, 4 (Q163)
JL-49-12-403	211	3,746 (3,535)	4 (3,742)	-	-	-	-	-	-	-	-	-	RA/MSF to 2,097'/K	shallow	4 (U3)
JL-49-12-603	502	4,075 (3,573)	226 (3,849)	226+	26	26.00	142	7.5	-	111	60	579	KP USF to 139'/K	-	2, 4 (U13)

<sup>1</sup> Remarks: See Tables A1, A2, A3, and A5

<sup>2</sup> Hydrostratigraphic Units: RA. River alluvium-Late Quaternary, SF. Santa Fe Group HSUs-undivided; USF. Upper Santa Fe Group HSUs-undivided; Camp Rice Fm (CR); MSF. Middle Santa Fe HSUs-undivided; Fort Hancock Fm (FH); LSF. Lower Santa Fe HSU; Qb. Quaternary basalt (intrusives and flows); Tv. Middle and Lower Tertiary volcanics-undivided; Trv. Middle and Lower Tertiary silicic volcanic rocks; Tvs. Lower Tertiary volcanic and sedimentary rocks; Ti. Lower Tertiary intermediate-intrusive rocks; K. Cretaceous sedimentary rocks

<sup>3</sup> References: 1. Conover (1954), 2. Hawley (1984), 3. King et al. (1971), 4. Leggat et al. (1962), 5. Mack (1985), 6. Myers and Orr (1985), 7. Nickerson (1986), 8. Seager et al. (1987), 9. Snyder (1986), 10. Wilson et al. (1981), 11. Wilson and White (1984), 12. El Paso Water Utilities, 13. Hunt Energy Corp. and New Mexico Bureau of Mines and Mineral Resources (unpublished)