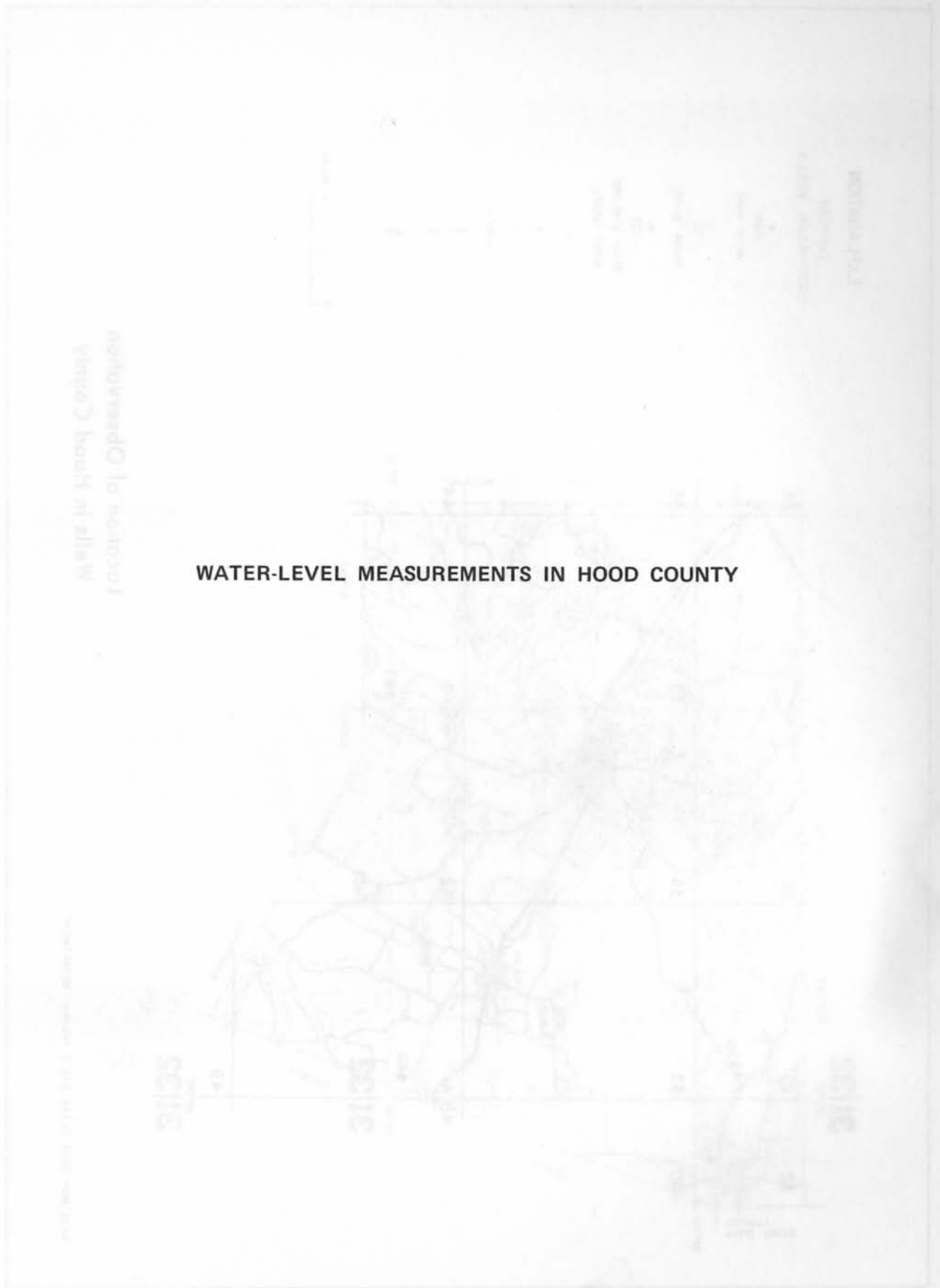
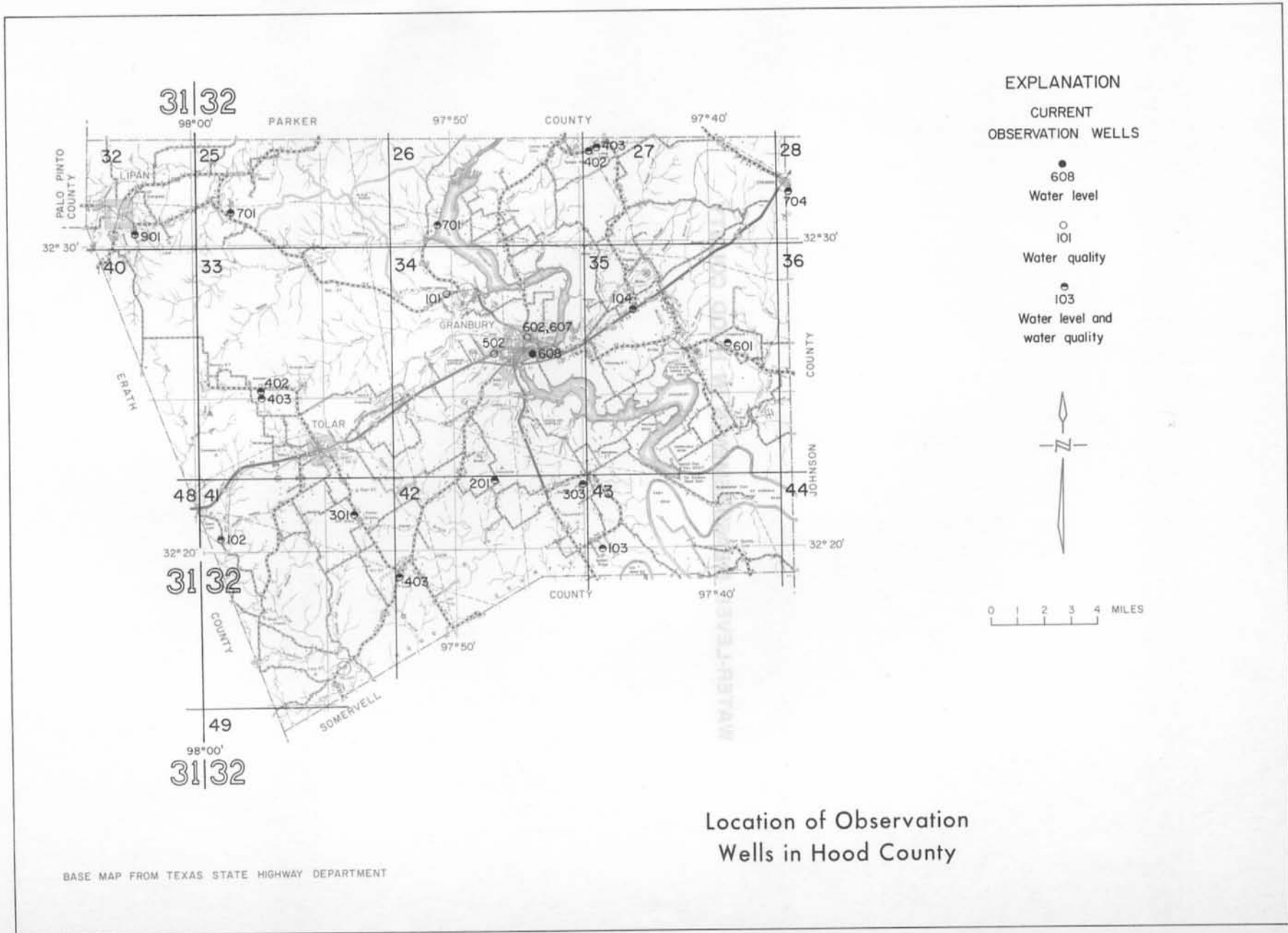


Water Level Measurements  
Location of Observation

### WATER-LEVEL MEASUREMENTS IN HOOD COUNTY





EXPLANATION

CURRENT OBSERVATION WELLS

● 608

Water level

○ 101

Water quality

● 103

Water level and water quality



Location of Observation Wells in Hood County

BASE MAP FROM TEXAS STATE HIGHWAY DEPARTMENT

HOOD COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 † MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
31-32-901	KCTM	46	962.00	06-25-67	27.00			
				10-25-67	34.60	7.60		
				03-27-69	28.60			6.00
				03-17-70	31.20	2.60		
				02-27-71	28.23			2.97
				03-04-71	28.29	0.06		
				11-04-71	28.80	0.51		
				11-16-72	29.98	1.18		
				03-19-73	29.51			0.47
				11-07-73	30.70	1.19		
				11-07-74	31.25	0.55		
32-25-701	KCTM	100	935.00	06-23-71	63.24			
				11-04-71	63.80	0.56		
				11-15-72	64.32	0.52		
				11-07-73	62.90			1.42
32-26-701	KCTM	80	735.00	06-23-71	49.79			
				11-04-71	47.91			1.88
				11-15-72	49.23*	1.32		
				11-12-74	47.12			2.11
32-27-402	KCPA	75	895.00	06-24-71	21.28			
				11-03-71	20.98			0.30
				11-14-72	20.70			0.28
				11-08-73	21.06	0.36		
				11-12-74	19.94			1.12
32-27-403	KCTM	358	895.00	06-24-71	276.98			
				11-03-71	276.34			0.64
				11-14-72	275.69			0.65
				11-08-73	277.64*	1.95		
				11-12-74	295.55	17.91		
32-28-704	KCPA	353	1037.00	10-05-60	265.80			
				11-03-71	268.22	2.42		
				11-14-72	266.59			1.63
				11-08-73	281.37	14.78		
				11-12-74	281.94	0.57		
32-33-402	KCTM	380	1132.00	06-25-71	286.17			
				11-04-71	278.70			7.47
				11-15-72	275.96			2.74
				11-07-73	277.72*	1.76		

HOOD COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
32-33-403	KCPA	25	1120.00	11-17-74	279.19*	1.47		
				06-25-71	9.86			
				11-04-71	6.60			3.26
				11-15-72	8.44	1.84		
				11-07-73	2.20			6.24
				11-12-74	1.74			0.46
32-34-608	KCTM	200	712.00	06-23-71	110.46			
				11-03-71	106.00			4.46
				11-14-72	110.05*	4.05		
				11-07-73	87.87			22.18
32-35-104	KCTM	292	825.00	06-24-71	241.09			
				11-03-71	242.20	1.11		
32-35-601	KCPA	155	842.00	10-11-60	88.60			
				06-24-71	87.94			0.66
				11-03-71	86.60			1.34
				11-14-72	86.18			0.42
				11-08-73	86.40	0.22		
32-41-102	KCTM	130	879.00	10-25-65	47.16			
				04-04-66	44.34			2.82
				03-15-67	46.02	1.68		
				03-28-68	44.23			1.79
				03-27-69	45.45	1.22		
				03-17-70	48.10	2.65		
				02-27-71	44.77			3.33
				03-04-71	43.77			1.00
				11-04-71	44.42	0.65		
				11-15-72	43.44			0.98
				03-19-73	43.58	0.14		
				11-07-73	43.85	0.27		
				11-12-74	43.98	0.13		
32-41-301	KCTM	285	995.00	06-25-71	236.09			
				11-03-71	231.50			4.59
				11-15-72	234.12	2.62		
				11-12-74	230.00			4.12
32-47-201	KCPA	130	1080.00	06-24-71	66.21			
				11-03-71	67.63	1.42		
				11-15-72	68.10*	0.47		
				11-08-73	67.41			0.69
				11-12-74	66.66			0.75



HOOD COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-42-303	KCTH	350	843.00	06-24-71	233.67		
				11-03-71	229.42		4.25
				06-13-73	235.15	5.73	
				11-08-73	240.75	5.60	
				11-12-74	252.46	11.71	
32-42-403	KCTH	355	1035.00	06-24-71	294.34		
				11-03-71	291.22		3.12
				06-13-73	290.84		0.38
				11-07-73	292.38	1.54	
				11-12-74	294.27	1.89	
32-43-103	KCTH	360	837.00	06-24-71	216.26		
				11-03-71	218.10	1.84	
				11-15-72	223.74	5.64	
				11-08-73	226.12	2.38	
				11-12-74	237.80	11.68	

## HOOD COUNTY

## GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	31-32-901	31-32-901	31-32-901	31-32-901
DATE OF COLLECTION	11/14/45	05/05/60	05/15/60	04/25/63
AQUIFER CODE	KCTM	KCTM	KCTM	KCTM
WELL DEPTH	46	46	46	46
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	16.0		.0	
CALCIUM (MG/L)	117.0	146.0	146.0	100.0
MAGNESIUM (MG/L)	16.0	23.0	23.0	13.0
SODIUM (MG/L)	12.0	30.0	30.0	14.0
POTASSIUM (MG/L)	4.4			
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	357.0	291.0	291.0	240.0
SULFATE (MG/L)	23.0	33.0	33.0	13.0
CHLORIDE (MG/L)	25.0	55.0	55.0	6.0
FLUORIDE (MG/L)	.4	.4	.4	.3
NITRATE (MG/L)	45.0	162.0	162.0	30.0
IRON (MG/L)	.1	.2	.3	
PH	7.0	7.0	7.0	7.3
DISSOLVED SOLIDS (MG/L)	434.4	592.6	595.4	294.3
PHENOL. ALK. CAC03				
TOTAL ALK. CAC03				
TOTAL HARD CAC03	358.0	460.0	460.0	302.0
% SODIUM	6.70	12.45	12.45	9.13
SAR	.2	.6	.6	.3
RSC	.0	.0	.0	.0
SPECIFIC CONDUCTANCE	767.0	1072.0	1072.0	675.0

## HOOD COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	31-32-901	31-32-901	32-25-701	32-26-701
DATE OF COLLECTION	05/09/66	11/07/73	06/23/71	06/23/71
AQUIFER CODE	KCTM	KCTM	KCTM	KCTM
WELL DEPTH	46	46	100	80
TEMPERATURE-F		68		
TEMPERATURE-C				
SILICA (MG/L)		6.0	16.0	14.0
CALCIUM (MG/L)	109.0	86.0	125.0	88.0
MAGNESIUM (MG/L)	16.0	16.0	22.0	15.0
SODIUM (MG/L)	24.0	24.0	17.0	14.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	346.0	310.0	397.0	325.0
SULFATE (MG/L)	26.0	27.0	22.0	30.0
CHLORIDE (MG/L)	23.0	34.0	46.0	9.0
FLUORIDE (MG/L)	.5	.7	.2	.3
NITRATE (MG/L)	44.0	.4	20.0	.4
IRON (MG/L)				
PH	7.4	7.9	7.4	7.3
DISSOLVED SOLIDS (MG/L)	412.6	346.5	463.0	330.0
PHENOL. ALK. CAC03		.0	.0	.0
TOTAL ALK. CAC03		254.0	325.0	266.0
TOTAL HARD CAC03	337.0	280.0	403.0	284.0
% SODIUM	13.38	15.69	8.41	9.76
SAR	.5	.6	.3	.3
RSC	.0	.0	.0	.0
SPECIFIC CONDUCTANCE	784.0	603.0	750.0	539.0

## HOOD COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER DATE OF COLLECTION	32-27-402 06/24/71	32-27-403 06/24/71	32-28-704 10/05/60	32-28-704 06/22/71
AQUIFER CODE	KCPA	KCTM	KCPA	KCPA
WELL DEPTH	75	358	353	353
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	16.0	14.0	17.0	21.0
CALCIUM (MG/L)	142.0	2.0	68.0	73.0
MAGNESIUM (MG/L)	7.0	2.0	14.0	15.0
SODIUM (MG/L)	35.0	240.0	33.0	27.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	344.0	550.0	296.0	301.0
SULFATE (MG/L)	56.0	44.0	37.0	39.0
CHLORIDE (MG/L)	64.0	11.0	12.0	10.0
FLUORIDE (MG/L)	.3	.9	.2	.3
NITRATE (MG/L)	32.0	.4	.0	.4
IRON (MG/L)			2.6	
PH	7.3	8.6	6.9	7.6
DISSOLVED SOLIDS (MG/L)	521.0	584.0	352.7	333.0
PHENOL, ALK. CaCO3	.0	9.0		.0
TOTAL ALK. CaCO3	282.0	466.0		247.0
TOTAL HARD CaCO3	384.0	11.0	227.0	243.0
% SODIUM	16.57	97.53	24.00	19.41
SAR	.7	28.7	.9	.7
RSC	.0	8.7	.3	.0
SPECIFIC CONDUCTANCE	850.0	900.0	550.0	498.0

HOOD COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-33-402	32-33-403	32-34-101	32-34-502
DATE OF COLLECTION	06/25/71	06/25/71	06/23/71	08/08/56
AQUIFER CODE	KCTM	KCPA	KCTM	KCTM
WELL DEPTH	380	25	120	186
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	16.0	21.0	14.0	
CALCIUM (MG/L)	69.0	157.0	93.0	31.0
MAGNESIUM (MG/L)	35.0	23.0	12.0	16.0
SODIUM (MG/L)	67.0	22.0	12.0	120.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	384.0	447.0	333.0	398.0
SULFATE (MG/L)	96.0	74.0	11.0	31.0
CHLORIDE (MG/L)	37.0	55.0	10.0	32.0
FLUORIDE (MG/L)	.4	.5	.3	.5
NITRATE (MG/L)	.4	.4	6.0	.4
IRON (MG/L)				.1
PH	7.4	7.3	7.3	7.5
DISSOLVED SOLIDS (MG/L)	509.0	572.0	322.0	426.6
PHENOL. ALK. CaCO3	.0	.0	.0	
TOTAL ALK. CaCO3	315.0	366.0	273.0	
TOTAL HARD CaCO3	316.0	487.0	280.0	144.0
% SODIUM	31.55	8.95	8.48	64.58
SAR	1.6	.4	.3	4.3
RSC	.0	.0	.0	3.6
SPECIFIC CONDUCTANCE	802.0	894.0	522.0	

HOOD COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-34-502	32-34-602	32-34-602	32-34-607
DATE OF COLLECTION	08/15/74	05/05/56	08/15/74	03/03/51
AQUIFER CODE	KCTM	KCTM	KCTM	KCTM
WELL DEPTH	186	225	225	175
TEMPERATURE-F	74		75	
TEMPERATURE-C				
SILICA (MG/L)	13.0		5.0	11.0
CALCIUM (MG/L)	84.0	3.0	6.0	7.0
MAGNESIUM (MG/L)	17.0	1.0	4.0	2.0
SODIUM (MG/L)	23.0	204.0	185.0	202.0
POTASSIUM (MG/L)	2.0			
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	317.0	420.0	403.0	415.0
SULFATE (MG/L)	35.0	47.0	52.0	71.0
CHLORIDE (MG/L)	20.0	43.0	29.0	39.0
FLUORIDE (MG/L)	.4	.4	.5	.1
NITRATE (MG/L)	1.0	.4	.8	2.2
IRON (MG/L)		.1		.1
PH	7.7	8.4	8.0	8.5
DISSOLVED SOLIDS (MG/L)	351.2	505.4	480.4	538.4
PHENOL, ALK. CAC03	.0		.0	
TOTAL ALK. CAC03	260.0		330.0	
TOTAL HARD CAC03	278.0	9.0	31.0	26.0
% SODIUM	15.06	97.45	92.75	94.47
SAR	.5	26.0	14.3	17.3
RSC	.0	6.6	5.9	6.2
SPECIFIC CONDUCTANCE	580.0		779.0	

## HOOD COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-34-607	32-34-607	32-35-104	32-35-601
DATE OF COLLECTION	04/14/56	08/15/74	06/24/71	10/11/60
AQUIFER CODE	KCTM	KCTM	KCTM	KCPA
WELL DEPTH	175	175	292	155
TEMPERATURE-F		75		
TEMPERATURE-C				
SILICA (MG/L)		5.0	11.0	16.0
CALCIUM (MG/L)	3.0	5.0	5.0	89.0
MAGNESIUM (MG/L)	1.0	3.0	5.0	5.0
SODIUM (MG/L)	198.0	197.0	276.0	8.0
POTASSIUM (MG/L)		2.0		1.1
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	381.0	434.0	540.0	294.0
SULFATE (MG/L)	70.0	36.0	165.0	13.0
CHLORIDE (MG/L)	39.0	36.0	21.0	6.0
FLUORIDE (MG/L)	.4	.4	3.1	.2
NITRATE (MG/L)	1.8	18.0	.4	
IRON (MG/L)	.6	.3		
PH	8.3	7.8	8.1	6.6
DISSOLVED SOLIDS (MG/L)	501.1	516.0	752.0	282.0
PHENOL. ALK. CAC03		.0	.0	
TOTAL ALK. CAC03		356.0	444.0	
TOTAL HARD CAC03	12.0	26.0	34.0	245.0
% SODIUM	97.37	93.99	94.78	6.65
SAR	25.2	17.2	20.8	.2
RSC	6.0	6.6	8.1	.0
SPECIFIC CONDUCTANCE		833.0	1123.0	493.0

## HOOD COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-35-601	32-41-102	32-41-301	32-42-201
DATE OF COLLECTION	06/24/71	11/15/72	06/25/71	06/24/71
AQUIFER CODE	KCPA	KCTM	KCTM	KCPA
WELL DEPTH	155	130	285	130
TEMPERATURE-F		70		
TEMPERATURE-C				
SILICA (MG/L)	16.0	13.0	15.0	10.0
CALCIUM (MG/L)	91.0	81.0	55.0	97.0
MAGNESIUM (MG/L)	7.0	25.0	31.0	4.0
SODIUM (MG/L)	7.0	10.0	50.0	7.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)		.2		
BICARBONATE (MG/L)	298.0	333.0	362.0	278.0
SULFATE (MG/L)	15.0	27.0	45.0	18.0
CHLORIDE (MG/L)	5.0	10.0	18.0	10.0
FLUORIDE (MG/L)	.3	.4	.3	.2
NITRATE (MG/L)	.4	1.5	1.0	5.9
IRON (MG/L)				
PH	7.7	7.4	7.7	7.6
DISSOLVED SOLIDS (MG/L)	288.0	331.8	393.0	288.0
PHENOL, ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	244.0	271.0	297.0	228.0
TOTAL HARD CAC03	255.0	304.0	263.0	257.0
% SODIUM	5.61	6.65	29.12	5.56
SAR	.1	.2	1.3	.1
RSC	.0	.0	.6	.0
SPECIFIC CONDUCTANCE	470.0	557.0	632.0	476.0



HOOD COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-42-303	32-42-403	32-43-103
DATE OF COLLECTION	06/24/71	06/24/71	06/24/71
AQUIFER CODE	KCTM	KCTM	KCTM
WELL DEPTH	350	355	360
TEMPERATURE-F			
TEMPERATURE-C			
SILICA (MG/L)	10.0	15.0	13.0
CALCIUM (MG/L)	2.0	38.0	6.0
MAGNESIUM (MG/L)	2.0	25.0	5.0
SODIUM (MG/L)	177.0	63.0	150.0
POTASSIUM (MG/L)			
MANGANESE (MG/L)			
BORON (MG/L)			
BICARBONATE (MG/L)	422.0	329.0	394.0
SULFATE (MG/L)	21.0	40.0	22.0
CHLORIDE (MG/L)	20.0	14.0	13.0
FLUORIDE (MG/L)	.4	.3	.3
NITRATE (MG/L)	.4	1.7	.4
IRON (MG/L)			
PH	8.2	7.7	7.9
DISSOLVED SOLIDS (MG/L)	440.0	358.0	403.0
PHENOL, ALK. CAC03	.0	.0	.0
TOTAL ALK. CAC03	346.0	270.0	323.0
TOTAL HARD CAC03	12.0	198.0	37.0
% SODIUM	96.68	40.94	90.17
SAR	21.1	1.9	10.9
RSC	6.6	1.4	5.7
SPECIFIC CONDUCTANCE	705.0	572.0	624.0

HOOD COUNTY

SUMMARY OF GROUND WATER QUALITY

AQUIFER KCPA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	10.00	21.00	15.83	16.00	83.33	6
CALCIUM (CA)	89.00	157.00	116.83	97.00	50.00	6
MAGNESIUM (MG)	4.00	23.00	11.33	7.00	33.33	6
SODIUM (NA)	7.00	35.00	16.00	8.00	50.00	6
BICARBONATE (HCO3)	278.00	447.00	343.00	298.00	50.00	6
SULFATE (SO4)	13.00	74.00	33.00	18.00	33.33	6
CHLORIDE (CL)	5.00	64.00	31.00	10.00	50.00	6
FLUORIDE (F)	0.20	0.50	0.28	0.20	50.00	6
NITRATE (NO3)	0.40	32.00	11.74	5.90	40.00	5
TOTAL DISSOLVED SOLIDS (TDS)	282.00	572.00	402.33	288.00	50.00	6
HARDNESS (CAC03)	245.00	487.00	338.50	257.00	50.00	6
SPECIFIC CONDUCTANCE	470.00	894.00	655.50	493.00	50.00	6
PH	6.60	7.70	7.31	7.30	33.33	6
PERCENT SODIUM	5.56	16.57	8.62	6.65	33.33	6
SAR	0.18	0.77	0.35	0.22	50.00	6
RSC	0.00	0.00	0.00	0.00	0.00	6

## HOOD COUNTY

SUMMARY OF GROUND WATER QUALITY--Continued  
AQUIFER KCTH

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	0.00	21.00	12.61	13.00	61.11	18
CALCIUM (CA)	1.00	146.00	46.63	55.00	52.63	19
MAGNESIUM (MG)	0.00	35.00	12.36	12.00	47.36	19
SODIUM (NA)	10.00	276.00	109.21	63.00	36.84	19
BICARBONATE (HCO3)	291.00	550.00	367.84	350.00	31.57	19
SULFATE (SO4)	11.00	165.00	51.36	39.00	21.05	19
CHLORIDE (CL)	9.00	55.00	23.31	20.00	31.57	19
FLUORIDE (F)	0.20	3.10	0.60	0.40	25.00	16
NITRATE (NO3)	0.00	162.00	10.54	0.40	5.88	17
TOTAL DISSOLVED SOLIDS (TDS)	322.00	752.00	447.76	403.00	36.84	19
HARDNESS (CAC03)	6.00	460.00	168.00	206.00	57.89	19
SPECIFIC CON- DUCTANCE	498.00	1123.00	719.94	624.00	33.33	18
PH	6.90	8.80	7.75	7.70	38.88	18
PERCENT SODIUM	6.65	99.51	52.98	38.28	36.84	19
SAR	0.24	64.18	14.58	1.79	31.57	19
RSC	0.00	8.75	3.00	1.29	36.84	19

HOOD COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

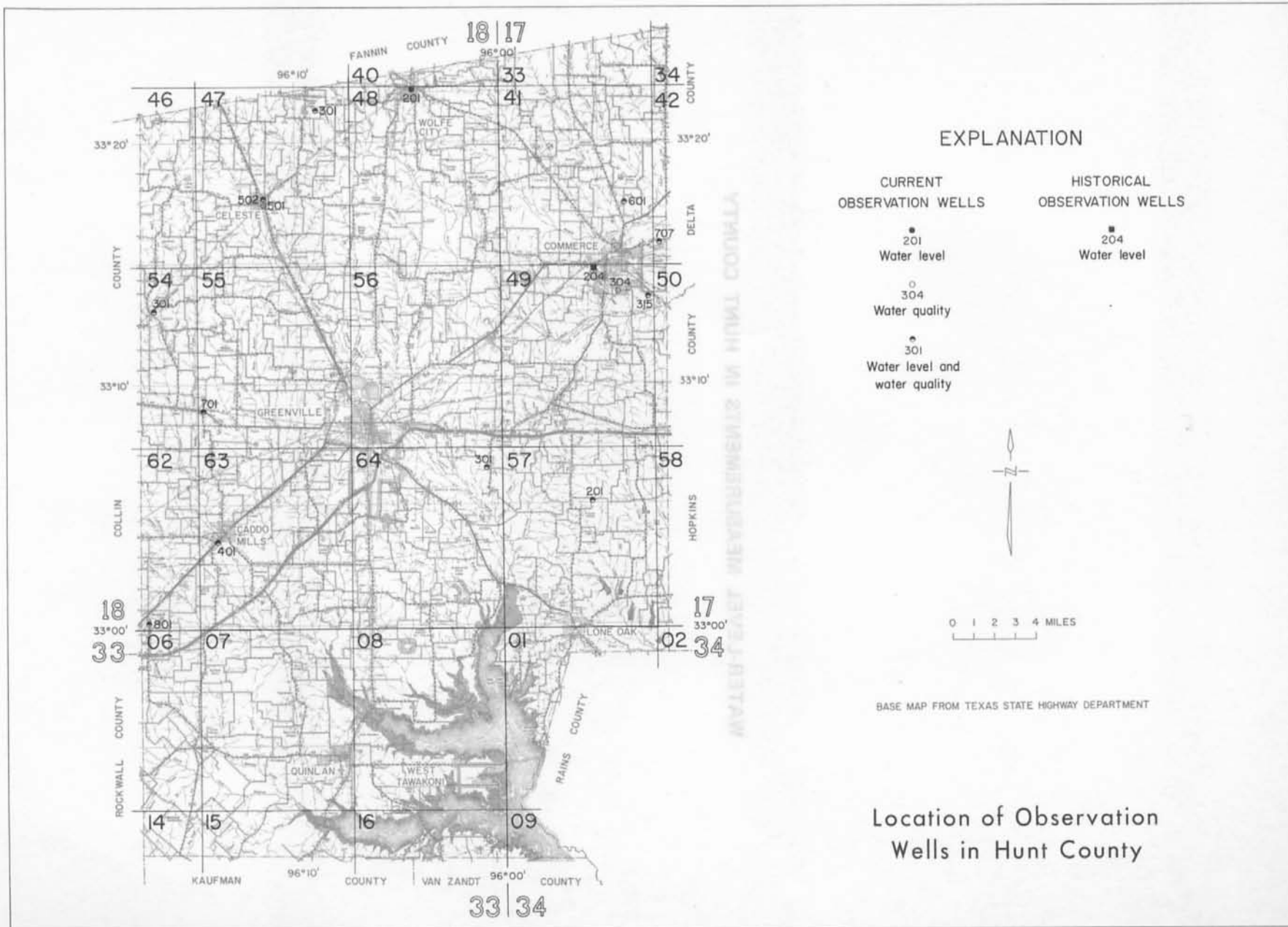
YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	91.54	.00	91.54
1956	176.03	.00	176.03
1957	216.43	.00	216.43
1958	247.37	.00	247.37
1959	316.95	.00	316.95
1960	387.25	.00	387.25
1961	367.05	.00	367.05
1962	399.20	.00	399.20
1963	410.22	.00	410.22
1964	443.61	.00	443.61
1965	415.17	.00	415.17
1966	373.04	.00	373.04
1967	364.22	.00	364.22
1968	343.75	.00	343.75
1969	406.43	.00	406.43
1970	472.21	.00	472.21
1971	862.90	.00	862.90
1972	743.39	.00	743.39
Total	7,036.76	.00	7,036.76

Wells in Hunt County  
Location of Observation



WATER-LEVEL MEASUREMENTS IN HUNT COUNTY





HUNT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 W MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASURE- MENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
17-41-601	KGNA	30	515.00	05-19-71	18.13			
				11-11-71	15.59			2.54
				11-14-72	18.32	2.73		
				11-08-73	13.71			4.61
				11-05-74	10.20			3.51
17-42-707	KGNA	430	541.00	05-18-71	270.19			
				11-14-72	281.95	11.76		
				11-08-73	283.21	1.26		
				11-05-74	282.52			0.69
17-49-204	KGNA	600	530.00	02-05-71	255.00			
				05-18-71	261.43	6.43		
17-49-315	KGNA	300	500.00	05-18-71	47.31			
				11-11-71	49.59	2.28		
				11-14-72	52.18	2.59		
				11-08-73	51.32			0.86
17-57-201	KGNA	301	583.00	05-18-71	161.09			
				11-11-71	163.87			17.22
				11-17-72	161.00			2.87
				11-08-73	134.70			26.30
				11-04-74	136.60	1.90		
18-47-301	KG1	16	660.00	05-20-71	3.44			
				11-11-71	3.15			0.29
				11-14-72	1.60			1.55
				11-08-73	0.74			0.86
				11-05-74	0.54			0.20
18-47-502	KGW	1870	670.00	01-00-71	427.00			
				05-20-71	442.00	15.00		
				11-11-71	439.00			3.00
				11-14-72	396.00			43.00
				11-05-73	400.00*	4.00		
				11-05-74	415.00*	15.00		
18-44-201	KCPA	3300	680.00	05-20-71	431.70			
				11-11-71	443.77	12.07		
				11-14-72	434.30			9.47
				11-08-73	436.66	2.36		
				11-05-74	443.50	6.84		

HUNT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BURF HOIE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
18-54-301	KGWC	20	660.00	05-20-71	7.90		
				11-11-71	7.12		0.78
				11-16-72	8.44	1.32	
				11-08-73	3.12		5.32
				11-05-74	2.27		0.85
18-55-701	KGT	18	610.00	05-20-71	3.02		
				11-11-71	2.98		0.04
				11-16-72	2.43		0.55
				11-08-73	0.88		1.55
				11-05-74	0.40		0.48
18-62-801	KGN	15	561.00	05-18-71	3.01		
				11-12-71	2.24		0.77
				11-17-72	6.70	4.46	
				11-08-73	0.40		6.30
				11-05-74	2.33	1.93	
18-63-401	KGN	30	520.00	05-18-71	4.23		
				11-12-71	3.08		1.15
				11-16-72	2.27		0.81
				11-08-73	0.69		1.58
				11-05-74	0.41		0.28
18-64-301	KGNA	220	535.00	05-19-71	65.33		
				11-11-71	64.02		1.31
				11-17-72	65.99	1.97	
				11-08-73	62.69		3.30
				11-04-74	63.44	0.75	



HUNT COUNTY

GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	17-41-601	17-41-601	17-42-707	17-49-304
DATE OF COLLECTION	05/19/71	11/08/73	05/18/71	02/04/53
AQUIFER CODE	KGNA	KGNA	KGNA	KGNA
WELL DEPTH	30	30	430	440
TEMPERATURE-F		62		
TEMPERATURE-C				
SILICA (MG/L)	21.0	22.0	11.0	12.0
CALCIUM (MG/L)	90.0	86.0	3.0	1.0
MAGNESIUM (MG/L)	11.0	6.0	2.0	
SODIUM (MG/L)	193.0	204.0	271.0	175.0
POTASSIUM (MG/L)				.9
MANGANESE (MG/L)				.4
BORON (MG/L)				
BICARBONATE (MG/L)	493.0	501.0	459.0	318.0
SULFATE (MG/L)	137.0	135.0	156.0	45.0
CHLORIDE (MG/L)	64.0	77.0	30.0	19.0
FLUORIDE (MG/L)	.8	.9	.5	.6
NITRATE (MG/L)	49.0	49.0	3.5	3.0
IRON (MG/L)				
PH	7.6	7.4	8.7	8.8
DISSOLVED SOLIDS (MG/L)	808.0	826.2	702.0	413.0
PHENOL, ALK. CaCO3	.0	.0	11.0	
TOTAL ALK. CaCO3	404.0	411.0	398.0	
TOTAL HARD CaCO3	272.0	240.0	16.0	
% SODIUM	60.87	64.96	97.40	
SAR	5.1	5.7	29.7	
RSC	2.6	3.4	7.2	
SPECIFIC CONDUCTANCE	1181.0	1210.0	1084.0	

HUNT COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	17-49-304	17-49-315	17-57-201	18-47-301
DATE OF COLLECTION	09/25/70	05/18/71	05/18/71	05/20/71
AQUIFER CODE	KGNA	KGNA	KGNA	KGK
WELL DEPTH	440	300	301	16
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	12.0	10.0	11.0	8.0
CALCIUM (MG/L)	1.0	3.0	7.0	29.0
MAGNESIUM (MG/L)	1.0	3.0	2.0	2.0
SODIUM (MG/L)	208.0	530.0	364.0	9.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	389.0	720.0	510.0	95.0
SULFATE (MG/L)	49.0	5.0	157.0	12.0
CHLORIDE (MG/L)	27.0	400.0	166.0	4.0
FLUORIDE (MG/L)	.4	2.0	2.6	.2
NITRATE (MG/L)	2.5	.4	2.5	5.5
IRON (MG/L)				
PH	9.1	8.3	8.2	7.4
DISSOLVED SOLIDS (MG/L)	492.0	1307.0	962.0	116.0
PHENOL. ALK. CaCO3	28.0	.0	.0	.0
TOTAL ALK. CaCO3	375.0	590.0	420.0	78.0
TOTAL HARD CaCO3	8.0	22.0	25.0	83.0
% SODIUM	98.56	98.30	96.85	19.54
SAR	35.2	51.7	31.2	.4
RSC	6.2	11.4	7.8	.0
SPECIFIC CONDUCTANCE	849.0	2160.0	1530.0	199.0

HUNT COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	18-47-501	18-47-501	18-47-502	18-47-502
DATE OF COLLECTION	09/13/43	09/25/70	10/13/70	05/20/71
AQUIFER CODE	KGW	KGW	KGW	KGW
WELL DEPTH	1819	1819	1870	1870
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	23.0	15.0		14.0
CALCIUM (MG/L)	3.0	1.0	2.0	3.0
MAGNESIUM (MG/L)	1.0	2.0	1.0	1.0
SODIUM (MG/L)	326.0	317.0	305.0	319.0
POTASSIUM (MG/L)	18.0			
MANGANESE (MG/L)			.0	
BORON (MG/L)				
BICARBONATE (MG/L)	451.0	484.0	405.0	466.0
SULFATE (MG/L)	170.0	167.0	123.0	168.0
CHLORIDE (MG/L)	105.0	100.0	119.0	106.0
FLUORIDE (MG/L)	1.6	1.6	1.5	1.6
NITRATE (MG/L)	2.2	1.5	8.0	1.3
IRON (MG/L)				
PH	8.1	8.1	8.1	7.6
DISSOLVED SOLIDS (MG/L)	871.0	843.0	758.0	843.0
PHENOL, ALK. CAC03			22.0	.0
TOTAL ALK. CAC03		397.0	376.0	382.0
TOTAL HARD CAC03		13.0	10.0	13.0
% SODIUM	95.34	98.46	98.64	98.35
SAR	41.6	42.1	43.9	40.7
RSC	7.1	7.7	6.4	7.4
SPECIFIC CONDUCTANCE		1320.0	1250.0	1300.0

## HUNT COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	18-54-301	18-55-701	18-62-801	18-63-401
DATE OF COLLECTION	05/20/71	05/20/71	05/18/71	05/18/71
AQUIFER CODE	KGWC	KGT	KGN	KGN
WELL DEPTH	20	18	15	30
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	7.0	6.0	19.0	15.0
CALCIUM (MG/L)	75.0	29.0	85.0	32.0
MAGNESIUM (MG/L)	17.0	1.0	7.0	3.0
SODIUM (MG/L)	137.0	21.0	67.0	37.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	88.0	68.0	227.0	150.0
SULFATE (MG/L)	224.0	32.0	107.0	15.0
CHLORIDE (MG/L)	114.0	20.0	15.0	21.0
FLUORIDE (MG/L)	.4	.2	.6	.4
NITRATE (MG/L)	112.0	4.5	73.0	.4
IRON (MG/L)				
PH	7.2	7.0	7.5	7.5
DISSOLVED SOLIDS (MG/L)	729.0	147.0	485.0	197.0
PHENOL, ALK. CaCO3	.0	.0	.0	.0
TOTAL ALK. CaCO3	72.0	56.0	186.0	123.0
TOTAL HARD CaCO3	259.0	79.0	242.0	93.0
% SODIUM	53.68	37.39	37.69	46.61
SAR	3.7	1.0	1.8	1.6
RSC	.0	.0	.0	.6
SPECIFIC CONDUCTANCE	1091.0	254.0	713.0	331.0

HUNT COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER 18-64-301  
 DATE OF COLLECTION 05/19/71

AQUIFER CODE KGNA  
 WELL DEPTH 220  
 TEMPERATURE-F  
 TEMPERATURE-C  
 SILICA (MG/L) 15.0  
 CALCIUM (MG/L) 51.0  
 MAGNESIUM (MG/L) 14.0  
 SODIUM (MG/L) 296.0  
 POTASSIUM (MG/L)  
 MANGANESE (MG/L)  
 BORON (MG/L)  
 BICARBONATE (MG/L) 371.0  
 SULFATE (MG/L) 378.0  
 CHLORIDE (MG/L) 96.0  
 FLUORIDE (MG/L) .7  
 NITRATE (MG/L) 11.0  
 IRON (MG/L)  
 PH 7.6  
 DISSOLVED SOLIDS (MG/L) 1044.0  
 PHENOL. ALK. CaCO3 .0  
 TOTAL ALK. CaCO3 304.0  
 TOTAL HARD CaCO3 186.0  
 % SODIUM 77.69  
 SAR 9.4  
 RSC 2.3  
 SPECIFIC CONDUCTANCE 1560.0

HUNT COUNTY

SUMMARY OF GROUND WATER QUALITY

AQUIFER KGNA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	10.00	16.00	12.33	12.00	33.33	12
CALCIUM (CA)	1.00	51.00	7.00	3.00	8.33	12
MAGNESIUM (MG)	1.00	14.00	2.70	1.00	20.00	10
SODIUM (NA)	175.00	688.00	320.27	271.00	18.18	11
BICARBONATE (HCO3)	318.00	886.00	507.16	389.00	25.00	12
SULFATE (SO4)	1.00	378.00	102.18	73.00	36.36	11
CHLORIDE (CL)	19.00	558.00	176.50	80.00	16.66	12
FLUORIDE (F)	0.30	4.80	1.26	0.70	27.27	11
NITRATE (NO3)	0.40	11.00	3.02	2.50	30.00	10
TOTAL DISSOLVED SOLIDS (TDS)	413.00	1699.00	838.75	702.00	33.33	12
HARDNESS (CAC03)	8.00	186.00	45.66	17.00	16.66	6
SPECIFIC CONDUCTANCE	849.00	2160.00	1436.60	1530.00	60.00	5
PH	7.60	9.10	8.50	8.60	58.33	12
PERCENT SODIUM	77.69	99.06	95.63	97.96	77.77	9
SAR	9.47	79.74	38.31	33.98	22.22	9
RSC	2.38	14.18	8.22	6.83	20.00	10

HUNT COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	674.31	.00	674.31
1956	679.73	.00	679.73
1957	619.78	.00	619.78
1958	664.86	.00	664.86
1959	644.84	.00	644.84
1960	1,169.91	.00	1,169.91
1961	958.72	.00	958.72
1962	1,078.94	.00	1,078.94
1963	1,363.27	.00	1,363.27
1964	1,199.85	.00	1,199.85
1965	1,169.70	.00	1,169.70
1966	1,278.66	.00	1,278.66
1967	1,337.18	.00	1,337.18
1968	1,506.93	.00	1,506.93
1969	1,591.08	.00	1,591.08
1970	1,664.88	.00	1,664.88
1971	1,606.09	.00	1,606.09
1972	1,768.87	.00	1,768.87
Total	20,977.60	.00	20,977.60

HUNT COUNTY

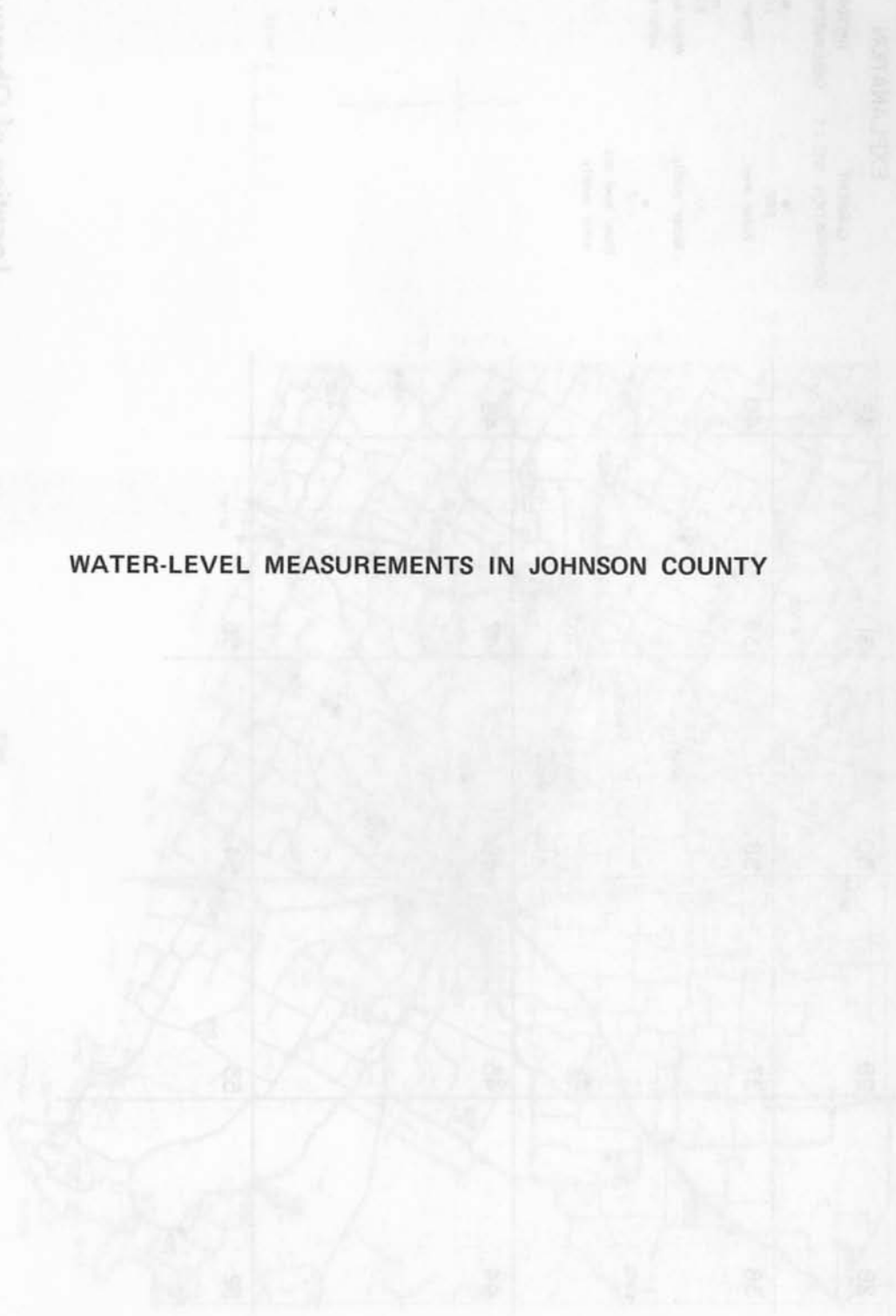
REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PURCHASE

MUNICIPAL AND INDUSTRIAL PURCHASE (ACRE-FEET)	INDUSTRIAL PURCHASE (ACRE-FEET)	MUNICIPAL PURCHASE (ACRE-FEET)	YEAR
874.31	00	874.31	1992
878.73	00	878.73	1993
812.78	00	812.78	1994
804.88	00	804.88	1995
844.38	00	844.38	1996
1,189.91	00	1,189.91	1997
908.73	00	908.73	1998
1,032.94	00	1,032.94	1999
1,303.73	00	1,303.73	2000
1,189.88	00	1,189.88	2001
1,189.78	00	1,189.78	2002
1,328.88	00	1,328.88	2003
1,327.48	00	1,327.48	2004
1,008.00	00	1,008.00	2005
1,897.88	00	1,897.88	2006
1,894.88	00	1,894.88	2007
1,898.00	00	1,898.00	2008
1,898.87	00	1,898.87	2009
20,877.80	00	20,877.80	Total



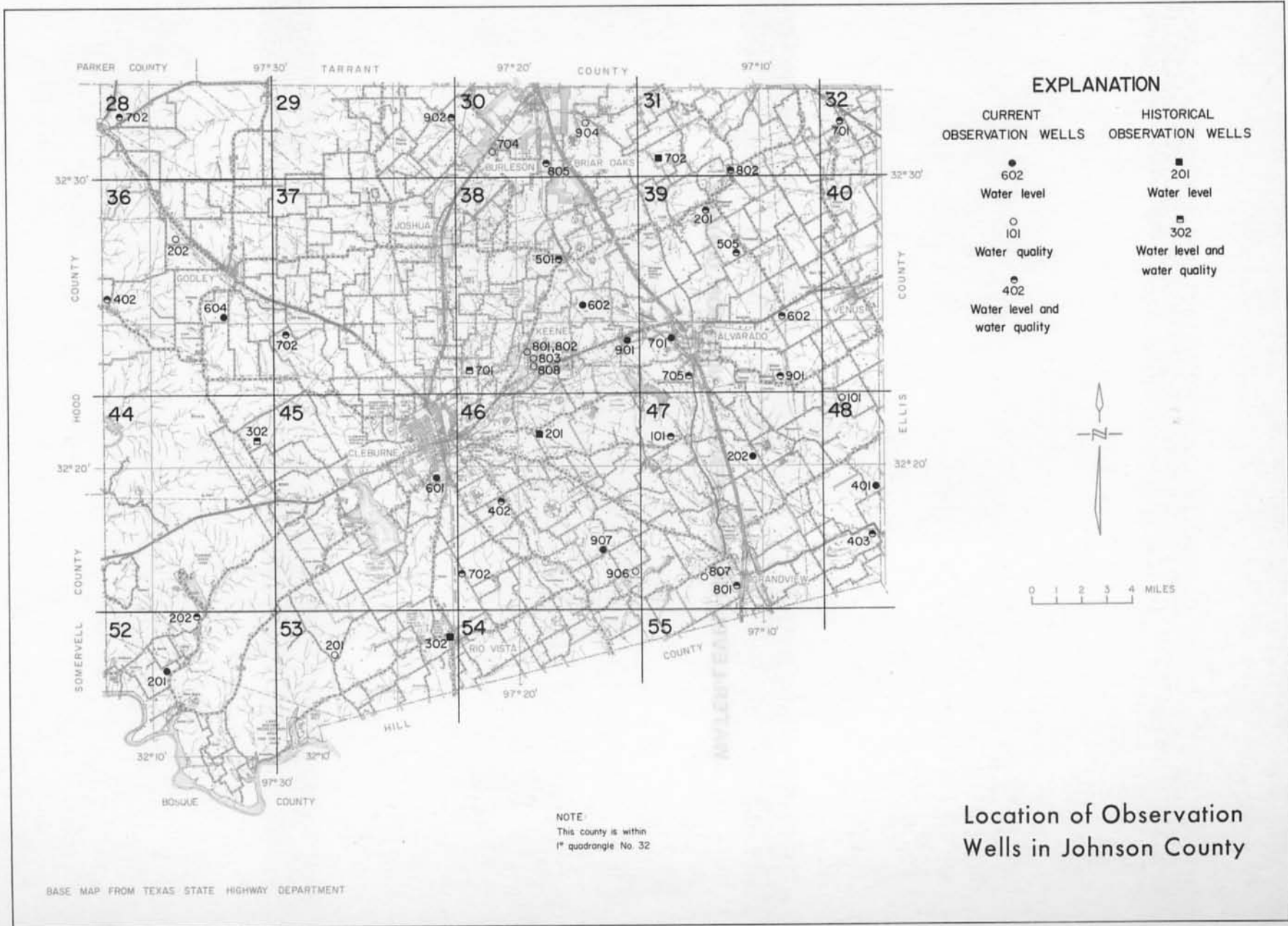
Wells in Johnson County  
Location of Observation

WATER-LEVEL MEASUREMENTS IN JOHNSON COUNTY



WELL NO. 1  
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WELL NO. 95  
WELL NO. 96  
WELL NO. 97  
WELL NO. 98  
WELL NO. 99  
WELL NO. 100

WATER-LEVEL MEASUREMENTS IN JOHNSON COUNTY  
1950-1951  
U.S. GEOLOGICAL SURVEY  
WATER RESOURCES DIVISION  
EDGEMOND, OKLA.



JOHNSON COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 W MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-28-702	KCFA	375	1032.00	09-22-46	292.80		
				05-28-70	274.20		18.60
				02-23-71	287.79 <sub>W</sub>	13.59	
				11-01-71	299.74	11.95	
				11-14-72	306.44*	6.70	
				11-12-73	302.20 <sub>W</sub>		4.24
				11-12-74	295.98		6.22
32-29-902	KCFA	584	812.00	08-11-46	438.95		
				05-18-70	445.12	6.17	
				02-23-71	444.07		1.05
				11-03-71	446.34 <sub>W</sub>	2.27	
				11-20-72	446.54	0.20	
				11-09-73	444.99		1.55
				11-08-74	445.88	0.89	
32-30-805	KCFA	657	766.00	09-04-46	462.58		
				05-18-70	471.12	8.54	
				02-23-71	474.45	3.33	
				11-03-71	476.68	2.23	
				11-20-72	479.24	2.56	
				11-09-73	475.23		4.01
				11-08-74	478.07	2.84	
32-31-702	KCFA	762	732.00	07-29-46	466.35		
				05-20-70	478.67	12.32	
				02-22-71	461.05 <sub>W</sub>		17.62
				11-02-71	465.05 <sub>W</sub>	4.00	
32-31-802	KGW	240	732.00	07-21-46	144.51		
				05-20-70	145.57	1.06	
				02-22-71	143.37		2.20
				11-02-71	143.64	0.27	
				11-13-72	149.07	5.43	
				11-13-73	147.12		1.95
32-32-701	KGW	240	632.00	10-04-46	165.48		
				05-21-70	169.80	4.32	
				02-22-71	170.81	1.01	
				11-02-71	170.47		0.34
				11-13-72	177.40	6.93	
				11-13-73	177.54	0.14	
				11-08-74	181.15	3.61	

JOHNSON COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-36-402	KCPA	120	780.00	09-29-66	82.73		
				05-28-70	83.12Q	0.39	
				11-01-71	83.88Q	0.76	
				11-14-72	81.36		2.52
				11-14-73	82.10Q	0.74	
32-36-604	KCPA	500	995.00	10-06-66	381.39		
				05-28-70	386.56	5.17	
				02-23-71	385.97Q		0.59
				11-01-71	386.42Q	0.45	
				11-14-72	382.38Q		4.04
32-36-702	KCPA	478	895.00	10-06-66	380.79		
				05-28-70	384.52	3.73	
				11-14-72	383.42		1.10
				11-14-73	383.12		0.30
				11-11-74	363.85		19.27
32-38-501	KGW	33	852.00	08-11-60	24.52		
				05-20-70	22.14		2.38
				02-22-71	23.52	1.38	
				11-03-71	20.50		3.02
				11-13-72	23.09	2.59	
32-38-602	KGW	25	825.00	08-11-60	17.88		
				05-19-70	13.02		4.86
				11-03-71	13.52	0.50	
				11-13-73	10.75		2.77
				11-11-74	13.22	2.47	
32-38-701	KCPA	700	790.00	09-29-66	380.20		
				05-29-70	385.62	5.42	
				02-23-71	386.81	1.19	
				11-02-71	387.42	0.61	
				11-14-72	381.69		5.73
32-38-901	KCTH	1630	830.00	08-04-66	638.00		
				11-09-71	904.00*	266.00	
				06-12-73	773.00		131.00
				11-09-73	797.00	24.00	
				11-11-74	890.00*	93.00	

JOHNSON COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORF HUIE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-39-201	KGW	270	733.00	10-04-46	130.80		
				05-20-70	132.80	2.00	
				02-22-71	134.09	1.29	
				11-02-71	133.60		0.49
				11-13-72	134.12	0.52	
				11-13-73	133.30		0.82
32-39-505	KGW	210	714.00	10-13-46	85.11		
				05-20-70	94.02	8.91	
				02-22-71	94.31	0.29	
				11-02-71	91.50		2.81
				11-13-73	94.85	3.35	
32-39-602	KGW	250	720.00	10-13-46	148.28		
				02-22-71	155.85	7.57	
				11-02-71	156.22	0.37	
				11-13-72	158.49	2.27	
				11-13-73	161.45	2.96	
32-39-701	KCPA	861	758.00	11-01-46	498.65		
				11-09-71	714.00*	215.35	
				11-09-73	723.00*	9.00	
				11-11-74	725.00*	2.00	
32-39-705	KGW	251	742.00	08-03-46	128.50		
				05-21-70	116.20		12.30
				02-22-71	114.74		1.46
				11-02-71	114.10		0.64
				11-13-72	109.64		4.46
				11-13-73	110.34	0.70	
32-39-901	KGW	----	725.00	10-12-46	163.65		
				05-21-70	160.15		3.50
				02-22-71	154.30		5.85
				11-02-71	157.20	2.90	
				11-13-72	163.31	6.11	
32-44-302	KCPA	449	946.00	07-26-46	361.70		
				05-27-70	368.80*	7.10	

JOHNSON COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 @ MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASURE- MENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-45-601	KCTM	1266	746.00	04-14-55	444.00		
				11-09-71	685.00	241.00	
				11-20-72	600.00		85.00
				11-12-73	665.00@	65.00	
				11-08-74	742.00@	77.00	
32-46-201	KCTM	1518	902.00	09-15-65	730.00		
32-46-402	KCPA	640	826.00	09-15-66	402.90		
				05-26-70	417.20@	14.30	
				02-24-71	406.90@		10.30
				11-02-71	409.20@	2.30	
				11-08-74	416.98	7.78	
32-46-702	KCPA	537	754.00	08-18-66	300.25		
				05-26-70	314.30	14.05	
				02-24-71	311.06		3.24
				11-02-71	314.70	3.64	
				11-14-72	317.98	3.28	
				11-14-73	319.80*	1.82	
				11-11-74	319.86	0.06	
32-46-907	KCTM	1560	825.00	06-13-73	626.00		
				11-08-74	680.00*	54.00	
32-47-101	KCPA	795	755.00	08-03-66	399.60		
				05-28-70	396.80@		2.80
				02-22-71	400.37@	3.57	
32-47-202	KGW	216	670.00	08-02-66	88.15		
				05-25-70	93.68	5.53	
				11-13-72	99.09	5.41	
				11-13-73	101.69	2.60	
				11-08-74	99.25		2.44
32-47-801	KGW	210	691.00	09-07-60	93.00		
				05-25-70	89.00		4.00
				11-02-71	83.20@		5.80
				11-13-72	69.90@		13.30
32-48-401	KGW	140	647.00	08-30-66	74.41		
				05-21-70	73.11		1.30
				02-22-71	73.31	0.20	
				11-08-74	62.60		10.71
32-48-403	KGW	135	579.00	08-30-66	55.62		

JOHNSON COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

W MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-52-201	KCPA	100	681.00	05-22-70	57.14		1.52
				02-22-71	59.22		2.08
				11-02-71	60.60		1.38
				11-13-72	62.67		2.07
				11-13-73	67.48*		4.81
32-52-202	KCTH	926	750.00	11-08-74	64.96		2.52
				07-13-76	72.78		
				05-27-70	69.80		2.98
				11-01-71	78.72	8.92	
				11-14-72	78.05		0.67
32-53-302	KCPA	510	743.00	11-14-73	70.98		7.07
				11-11-74	69.10		1.86
				07-20-78	251.50		
				05-27-70	287.90	36.40	
				02-23-71	289.33*	1.43	
32-53-302	KCPA	510	743.00	11-01-71	290.14	0.81	
				06-12-73	321.13*	30.99	
				11-11-74	341.14	20.01	
				09-06-70	265.00		
32-53-302	KCPA	510	743.00	05-28-70	244.00		21.00
				02-24-71	253.30	9.30	



## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER DATE OF COLLECTION	32-28-702 05/28/70	32-29-902 08/11/66	32-29-902 05/18/70	32-29-902 11/20/72
AQUIFER CODE	KCPA	KCPA	KCPA	KCPA
WELL DEPTH	375	584	584	584
TEMPERATURE-F	70	76	69	
TEMPERATURE-C				
SILICA (MG/L)	41.0	31.0	11.0	11.0
CALCIUM (MG/L)	55.0	242.0	1.0	1.0
MAGNESIUM (MG/L)	21.0	33.0	1.0	2.0
SODIUM (MG/L)	33.0	106.0	184.0	182.0
POTASSIUM (MG/L)		2.9		
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	303.0	374.0	400.0	378.0
SULFATE (MG/L)	33.0	308.0	32.0	30.0
CHLORIDE (MG/L)	12.0	251.0	7.0	9.0
FLUORIDE (MG/L)	.3	.2	.4	.5
NITRATE (MG/L)	.4	.0	.4	.4
IRON (MG/L)				
PH	7.4	7.0	8.8	9.0
DISSOLVED SOLIDS (MG/L)	344.0	1157.9	433.0	421.7
PHENOL. ALK. CAC03	.0		16.0	.0
TOTAL ALK. CAC03	248.0		360.0	356.0
TOTAL HARD CAC03	225.0	740.0	9.0	9.0
% SODIUM	24.30	23.67	98.37	97.36
SAR	.9	1.6	31.1	24.1
RSC	.4	.0	6.4	5.9
SPECIFIC CONDUCTANCE	528.0	1820.0	714.0	715.0



## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER DATE OF COLLECTION	32-30-704 05/18/70	32-30-805 05/18/70	32-30-904 05/20/70	32-31-802 07/21/66
AQUIFER CODE	KCPA	KCPA	KCPA	KGW
WELL DEPTH	554	657	575	240
TEMPERATURE-F		70	70	72
TEMPERATURE-C				
SILICA (MG/L)	10.0	10.0	10.0	9.0
CALCIUM (MG/L)	2.0	1.0	1.0	18.0
MAGNESIUM (MG/L)	1.0	1.0	2.0	6.0
SODIUM (MG/L)	188.0	204.0	204.0	192.0
POTASSIUM (MG/L)				2.5
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	411.0	459.0	445.0	332.0
SULFATE (MG/L)	34.0	39.0	50.0	181.0
CHLORIDE (MG/L)	8.0	9.0	11.0	24.0
FLUORIDE (MG/L)	.6	.8	1.1	1.0
NITRATE (MG/L)	2.0	1.5	2.0	.0
IRON (MG/L)				
PH	8.9	8.7	8.8	7.8
DISSOLVED SOLIDS (MG/L)	447.6	491.0	499.0	596.7
PHENOL, ALK. CaCO <sub>3</sub>	18.0	13.0	17.0	
TOTAL ALK. CaCO <sub>3</sub>	373.0	402.0	399.0	
TOTAL HARD CaCO <sub>3</sub>	9.0	8.0	11.0	69.0
% SODIUM	97.82	98.53	97.64	85.15
SAR	27.1	34.5	27.1	10.0
RSC	6.5	7.3	7.0	4.0
SPECIFIC CONDUCTANCE	734.0	803.0	827.0	973.0

## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-31-802	32-32-701	32-36-202	32-36-402
DATE OF COLLECTION	05/20/70	05/21/70	05/28/70	05/28/70
AQUIFER CODE	KGW	KGW	KCPA	KCPA
WELL DEPTH	240	175	422	120
TEMPERATURE-F	70	70	70	71
TEMPERATURE-C				
SILICA (MG/L)	9.0	11.0	26.0	18.0
CALCIUM (MG/L)	19.0	23.0	2.0	77.0
MAGNESIUM (MG/L)	7.0	8.0	1.0	14.0
SODIUM (MG/L)	184.0	148.0	148.0	18.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	325.0	278.0	348.0	296.0
SULFATE (MG/L)	184.0	127.0	30.0	35.0
CHLORIDE (MG/L)	24.0	43.0	12.0	9.0
FLUORIDE (MG/L)	.9	.5	.1	.1
NITRATE (MG/L)	1.5	1.5	.4	.4
IRON (MG/L)				
PH	7.7	7.4	8.2	8.0
DISSOLVED SOLIDS (MG/L)	589.0	498.0	390.6	317.0
PHENOL. ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	265.0	228.0	285.0	243.0
TOTAL HARD CAC03	76.0	92.0	7.0	251.0
% SODIUM	84.00	78.09	97.25	13.55
SAR	9.1	6.7	21.3	.4
RSC	3.8	2.7	5.5	.0
SPECIFIC CONDUCTANCE	903.0	802.0	602.0	501.0

## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-37-702	32-38-501	32-38-701	32-38-801
DATE OF COLLECTION	05/28/70	05/20/70	05/29/70	01/13/71
AQUIFER CODE	KCPA	KGW	KCPA	KCPA
WELL DEPTH	478	33	700	790
TEMPERATURE-F	69	69	70	
TEMPERATURE-C				
SILICA (MG/L)	30.0	18.0	10.0	12.0
CALCIUM (MG/L)	1.0	42.0	1.0	2.0
MAGNESIUM (MG/L)	1.0	12.0	1.0	1.0
SODIUM (MG/L)	182.0	53.0	195.0	227.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	470.0	79.0	398.0	465.0
SULFATE (MG/L)	5.0	116.0	47.0	68.0
CHLORIDE (MG/L)	8.0	31.0	17.0	19.0
FLUORIDE (MG/L)	.3	.3	.6	1.6
NITRATE (MG/L)	.4	56.0	.4	.4
IRON (MG/L)				
PH	8.1	6.4	9.0	8.8
DISSOLVED SOLIDS (MG/L)	458.0	367.0	467.0	559.6
PHENOL, ALK. CAC03	.0	.0	23.0	18.0
TOTAL ALK. CAC03	385.0	65.0	372.0	417.0
TOTAL HARD CAC03	9.0	153.0	7.0	12.0
% SODIUM	98.35	42.78	98.46	98.19
SAR	30.8	1.8	33.0	32.7
RSC	7.5	.0	6.3	7.4
SPECIFIC CONDUCTANCE	684.0	551.0	795.0	924.0

## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-38-801	32-38-802	32-38-802	32-38-803
DATE OF COLLECTION	01/16/75	01/13/71	01/16/75	01/13/71
AQUIFER CODE	KCPA	KCTM	KCTM	KCTM
WELL DEPTH	790	1508	1508	1603
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	9.0	11.0	8.0	13.0
CALCIUM (MG/L)	3.0	2.0	2.0	3.0
MAGNESIUM (MG/L)	1.0	1.0	1.0	1.0
SODIUM (MG/L)	230.0	227.0	233.0	227.0
POTASSIUM (MG/L)			1.0	
MANGANESE (MG/L)				
BORON (MG/L)			.4	
BICARBONATE (MG/L)	520.0	483.0	412.0	403.0
SULFATE (MG/L)	64.0	71.0	73.0	75.0
CHLORIDE (MG/L)	22.0	20.0	62.0	59.0
FLUORIDE (MG/L)	1.7	1.6	.6	.6
NITRATE (MG/L)	1.4	.4	.4	.4
IRON (MG/L)				
PH	8.3	8.6	8.7	8.7
DISSOLVED SOLIDS (MG/L)	587.7	571.4	583.9	577.1
PHENOL. ALK. CAC03	.0	8.0	13.0	11.0
TOTAL ALK. CAC03	425.0	412.0	364.0	352.0
TOTAL HARD CAC03	7.0	10.0	8.0	12.0
% SODIUM	97.73	98.19	97.99	97.70
SAR	29.3	32.7	33.6	29.0
RSC	8.2	7.7	6.5	6.3
SPECIFIC CONDUCTANCE	915.0	914.0	960.0	949.0

## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-38-808	32-39-201	32-39-505	32-39-602
DATE OF COLLECTION	01/13/71	05/20/70	05/20/70	05/29/70
AQUIFER CODE	KCTM	KGW	KGW	KGW
WELL DEPTH	1501	270	210	250
TEMPERATURE-F		70	69	71
TEMPERATURE-C				
SILICA (MG/L)	13.0	9.0	12.0	27.0
CALCIUM (MG/L)	3.0	13.0	60.0	38.0
MAGNESIUM (MG/L)	1.0	9.0	19.0	15.0
SODIUM (MG/L)	227.0	176.0	119.0	144.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	417.0	349.0	278.0	312.0
SULFATE (MG/L)	71.0	134.0	180.0	185.0
CHLORIDE (MG/L)	58.0	22.0	57.0	20.0
FLUORIDE (MG/L)	.7	.7	.7	.5
NITRATE (MG/L)	.4	5.0	3.0	1.5
IRON (MG/L)				
PH	8.6	7.7	7.3	7.6
DISSOLVED SOLIDS (MG/L)	579.1	540.0	587.0	584.0
PHENOL, ALK, CaCO3	7.0	.0	.0	.0
TOTAL ALK. CaCO3	356.0	286.0	228.0	256.0
TOTAL HARD CaCO3	12.0	68.0	229.0	156.0
% SODIUM	97.70	84.64	53.18	66.68
SAR	29.0	9.1	3.4	5.0
RSC	6.6	4.3	.0	1.9
SPECIFIC CONDUCTANCE	948.0	830.0	919.0	869.0

## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-39-705	32-39-705	32-39-901	32-44-302
DATE OF COLLECTION	08/03/66	05/21/70	05/21/70	05/27/70
AQUIFER CODE	KGW	KGW	KGW	KCPA
WELL DEPTH	251	251	----	449
TEMPERATURE-F		71	70	70
TEMPERATURE-C				
SILICA (MG/L)	10.0	9.0	11.0	28.0
CALCIUM (MG/L)	4.0	3.0	28.0	3.0
MAGNESIUM (MG/L)	1.0	2.0	11.0	2.0
SODIUM (MG/L)	216.0	216.0	162.0	205.0
POTASSIUM (MG/L)	2.5			
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	445.0	448.0	321.0	450.0
SULFATE (MG/L)	82.0	84.0	158.0	61.0
CHLORIDE (MG/L)	26.0	26.0	29.0	24.0
FLUORIDE (MG/L)	1.5	1.5	.5	.4
NITRATE (MG/L)	3.8	.4	7.0	.4
IRON (MG/L)				
PH	7.6	8.2	7.6	7.9
DISSOLVED SOLIDS (MG/L)	565.6	562.0	564.0	545.0
PHENOL. ALK. CAC03		.0	.0	.0
TOTAL ALK. CAC03		367.0	263.0	369.0
TOTAL HARD CAC03	13.0	16.0	113.0	15.0
% SODIUM	96.45	96.76	75.37	96.59
SAR	25.0	23.7	6.5	22.5
RSC	7.0	7.0	2.9	7.0
SPECIFIC CONDUCTANCE	949.0	890.0	860.0	825.0

## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-46-402	32-46-702	32-46-906	32-47-101
DATE OF COLLECTION	05/26/70	05/26/70	05/25/70	08/03/66
AQUIFER CODE	KCPA	KCPA	KCPA	KCPA
WELL DEPTH	640	537	663	795
TEMPERATURE-F	71	71		
TEMPERATURE-C				
SILICA (MG/L)	27.0	26.0	26.0	11.0
CALCIUM (MG/L)	2.0	2.0	3.0	1.0
MAGNESIUM (MG/L)	1.0	2.0	2.0	1.0
SODIUM (MG/L)	242.0	290.0	510.0	302.0
POTASSIUM (MG/L)				1.8
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	472.0	570.0	920.0	622.0
SULFATE (MG/L)	87.0	91.0	273.0	107.0
CHLORIDE (MG/L)	24.0	44.0	60.0	27.0
FLUORIDE (MG/L)	1.7	3.2	9.8	3.8
NITRATE (MG/L)	2.0	.4	.4	3.2
IRON (MG/L)				
PH	8.9	8.6	8.1	8.1
DISSOLVED SOLIDS (MG/L)	618.0	738.0	1336.5	763.6
PHENOL. ALK. CAC03	19.0	10.0	.0	
TOTAL ALK. CAC03	425.0	485.0	750.0	
TOTAL HARD CAC03	8.0	11.0	18.0	4.0
% SODIUM	98.30	97.94	98.60	98.66
SAR	34.9	34.7	55.9	51.1
RSC	7.5	9.0	14.7	10.0
SPECIFIC CONDUCTANCE	971.0	1146.0	1960.0	1260.0

## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-47-101	32-47-801	32-47-801	32-47-807
DATE OF COLLECTION	05/28/70	05/25/70	11/14/73	05/25/70
AQUIFER CODE	KCPA	KGW	KGW	KGW
WELL DEPTH	795	210	210	160
TEMPERATURE-F	69	69	68	70
TEMPERATURE-C				
SILICA (MG/L)	10.0	17.0	12.0	9.0
CALCIUM (MG/L)	2.0	405.0	43.0	4.0
MAGNESIUM (MG/L)	2.0	89.0	15.0	6.0
SODIUM (MG/L)	302.0	111.0	144.0	441.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	610.0	364.0	266.0	570.0
SULFATE (MG/L)	113.0	1100.0	192.0	420.0
CHLORIDE (MG/L)	27.0	118.0	44.0	67.0
FLUORIDE (MG/L)	4.4	.9	.7	2.8
NITRATE (MG/L)	.4	3.0	9.0	.4
IRON (MG/L)				
PH	8.4	7.0	7.5	7.7
DISSOLVED SOLIDS (MG/L)	760.0	2022.0	590.4	1230.4
PHENOL. ALK. CaCO3	6.0	.0	.0	.0
TOTAL ALK. CaCO3	510.0	298.0	218.0	467.0
TOTAL HARD CaCO3	12.0	1380.0	169.0	35.0
% SODIUM	98.02	14.92	64.95	96.51
SAR	36.1	1.3	4.8	32.5
RSC	9.7	.0	.9	8.6
SPECIFIC CONDUCTANCE	1167.0	2340.0	928.0	1790.0



## JOHNSON COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-48-101	32-48-403	32-48-403	32-52-202
DATE OF COLLECTION	05/21/70	05/22/70	11/13/73	07/20/66
AQUIFER CODE	KGW	KGW	KGW	KCTM
WELL DEPTH	225	135	135	926
TEMPERATURE-F	69	70	69	
TEMPERATURE-C				
SILICA (MG/L)	9.0	8.0	8.0	11.0
CALCIUM (MG/L)	19.0	4.0	4.0	2.0
MAGNESIUM (MG/L)	4.0	2.0	1.0	1.0
SODIUM (MG/L)	223.0	444.0	447.0	195.0
POTASSIUM (MG/L)				1.2
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	351.0	580.0	580.0	400.0
SULFATE (MG/L)	231.0	403.0	407.0	63.0
CHLORIDE (MG/L)	23.0	67.0	76.0	24.0
FLUORIDE (MG/L)	.8	2.0	2.0	.4
NITRATE (MG/L)	.4	3.5	4.7	.0
IRON (MG/L)				
PH	7.6	8.3	8.1	8.3
DISSOLVED SOLIDS (MG/L)	682.7	1218.0	1234.8	494.2
PHENOL. ALK. CAC03	.0	.0	.0	
TOTAL ALK. CAC03	288.0	476.0	474.0	
TOTAL HARD CAC03	65.0	17.0	15.0	6.0
% SODIUM	88.36	98.15	98.57	97.55
SAR	12.1	45.2	51.8	28.1
RSC	4.4	9.1	9.2	6.3
SPECIFIC CONDUCTANCE	1017.0	1790.0	1830.0	828.0

JOHNSON COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-52-202	32-53-201
DATE OF COLLECTION	05/27/70	05/27/70
AQUIFER CODE	KCTM	KCPA
WELL DEPTH	926	460
TEMPERATURE-F	71	71
TEMPERATURE-C		
SILICA (MG/L)	28.0	26.0
CALCIUM (MG/L)	2.0	4.0
MAGNESIUM (MG/L)	1.0	3.0
SODIUM (MG/L)	193.0	263.0
POTASSIUM (MG/L)		
MANGANESE (MG/L)		
BORON (MG/L)		
BICARBONATE (MG/L)	397.0	475.0
SULFATE (MG/L)	65.0	121.0
CHLORIDE (MG/L)	23.0	40.0
FLUORIDE (MG/L)	.3	1.8
NITRATE (MG/L)	.4	2.0
IRON (MG/L)		
PH	8.5	8.7
DISSOLVED SOLIDS (MG/L)	507.0	694.3
PHENOL, ALK. CAC03	6.0	.0
TOTAL ALK. CAC03	337.0	415.0
TOTAL HARD CAC03	8.0	25.0
% SODIUM	97.87	96.24
SAR	27.8	24.2
RSC	6.3	7.3
SPECIFIC CONDUCTANCE	780.0	1072.0

## JOHNSON COUNTY

SUMMARY OF GROUND WATER QUALITY  
AQUIFER KCPA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	9.00	41.00	15.80	12.00	30.00	30
CALCIUM (CA)	1.00	242.00	18.56	2.00	18.75	32
MAGNESIUM (MG)	0.00	33.00	4.75	1.00	18.75	32
SODIUM (NA)	18.00	408.00	187.59	184.00	50.00	32
BICARBONATE (HCO3)	294.00	684.00	432.03	411.00	40.62	32
SULFATE (SO4)	0.00	308.00	68.18	41.00	25.00	32
CHLORIDE (CL)	7.00	251.00	24.31	13.00	25.00	32
FLUORIDE (F)	0.10	7.50	1.44	0.50	28.12	32
NITRATE (NO3)	0.00	3.20	0.81	0.40	28.12	32
TOTAL DISSOLVED SOLIDS (TDS)	317.00	1157.99	534.08	458.00	31.25	32
HARDNESS (CAC03)	2.00	740.00	62.90	9.00	15.62	32
SPECIFIC CON- DUCTANCE	501.00	1820.00	914.03	803.00	34.61	26
PH	6.90	9.00	8.26	8.30	56.66	30
PERCENT SODIUM	12.62	99.21	84.21	97.65	78.12	32
SAR	0.49	53.99	26.39	27.11	53.12	32
RSC	0.00	10.89	6.03	6.42	59.37	32

## JOHNSON COUNTY

## SUMMARY OF GROUND WATER QUALITY--Continued

## AQUIFER KCTM

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	11.00	15.00	13.33	13.00	50.00	6
CALCIUM (CA)	2.00	4.00	2.42	2.00	14.28	7
MAGNESIUM (MG)	1.00	3.00	1.28	1.00	0.00	7
SODIUM (NA)	167.00	259.00	226.14	232.00	57.14	7
BICARBONATE (HCO3)	356.00	452.00	390.83	378.00	33.33	6
SULFATE (SO4)	77.00	160.00	107.42	106.00	28.57	7
CHLORIDE (CL)	16.00	42.00	32.85	39.00	57.14	7
FLUORIDE (F)	0.70	1.60	1.22	1.20	40.00	5
NITRATE (NO3)	0.20	1.50	0.88	1.00	60.00	5
TOTAL DISSOLVED SOLIDS (TDS)	382.60	688.24	552.20	578.15	71.42	7
HARDNESS (CAC03)	7.00	54.00	15.42	9.00	0.00	7
SPECIFIC CON- DUCTANCE	797.00	1120.00	987.75	972.00	50.00	4
PH	7.90	8.70	8.45	8.60	71.42	7
PERCENT SODIUM	93.68	98.31	96.58	97.72	57.14	7
SAR	15.38	35.19	30.75	33.08	85.71	7
RSC	5.65	7.17	6.16	5.88	33.33	6

## JOHNSON COUNTY

## SUMMARY OF GROUND WATER QUALITY--Continued

## AQUIFER KGW

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	8.00	27.00	12.62	11.00	20.68	29
CALCIUM (CA)	2.00	405.00	48.00	24.00	17.24	29
MAGNESIUM (MG)	0.00	89.00	12.93	9.00	31.03	29
SODIUM (NA)	34.00	510.00	196.34	162.00	31.03	29
BICARBONATE (HCO3)	48.00	920.00	361.65	325.00	37.93	29
SULFATE (SO4)	58.00	1100.00	231.79	181.00	31.03	29
CHLORIDE (CL)	20.00	120.00	46.55	31.00	31.03	29
FLUORIDE (F)	0.20	9.80	1.21	0.70	24.13	29
NITRATE (NO3)	0.00	56.00	3.70	1.20	20.68	29
TOTAL DISSOLVED SOLIDS (TDS)	367.00	2022.00	732.77	589.00	27.58	29
HARDNESS (CAC03)	4.00	1380.00	171.68	92.00	24.13	29
SPECIFIC CON- DUCTANCE	551.00	2340.00	1120.93	932.00	31.03	29
PH	6.00	8.30	7.51	7.60	51.72	29
PERCENT SODIUM	14.92	99.13	71.96	75.85	55.17	29
SAR	0.95	55.98	15.35	6.56	31.03	29
RSC	0.00	14.76	3.83	2.95	41.37	29

JOHNSON COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	2,598.63	1.10	2,599.73
1956	2,975.15	1.10	2,976.25
1957	2,678.90	1.10	2,680.00
1958	2,289.86	.82	2,290.68
1959	2,702.14	.56	2,702.70
1960	2,651.39	6.69	2,658.08
1961	3,123.02	191.46	3,314.48
1962	3,160.57	191.46	3,352.03
1963	3,020.97	190.90	3,211.87
1964	2,943.10	112.32	3,055.42
1965	1,731.51	112.32	1,843.83
1966	1,241.17	171.85	1,413.02
1967	1,403.80	171.85	1,575.65
1968	1,491.49	171.85	1,663.34
1969	2,267.92	171.85	2,439.77
1970	3,006.62	171.85	3,178.47
1971	2,211.82	171.85	2,383.67
1972	2,385.76	709.59	3,095.35
Total	43,883.82	2,550.52	46,434.34

Map of Kaufman County  
Location of Observation

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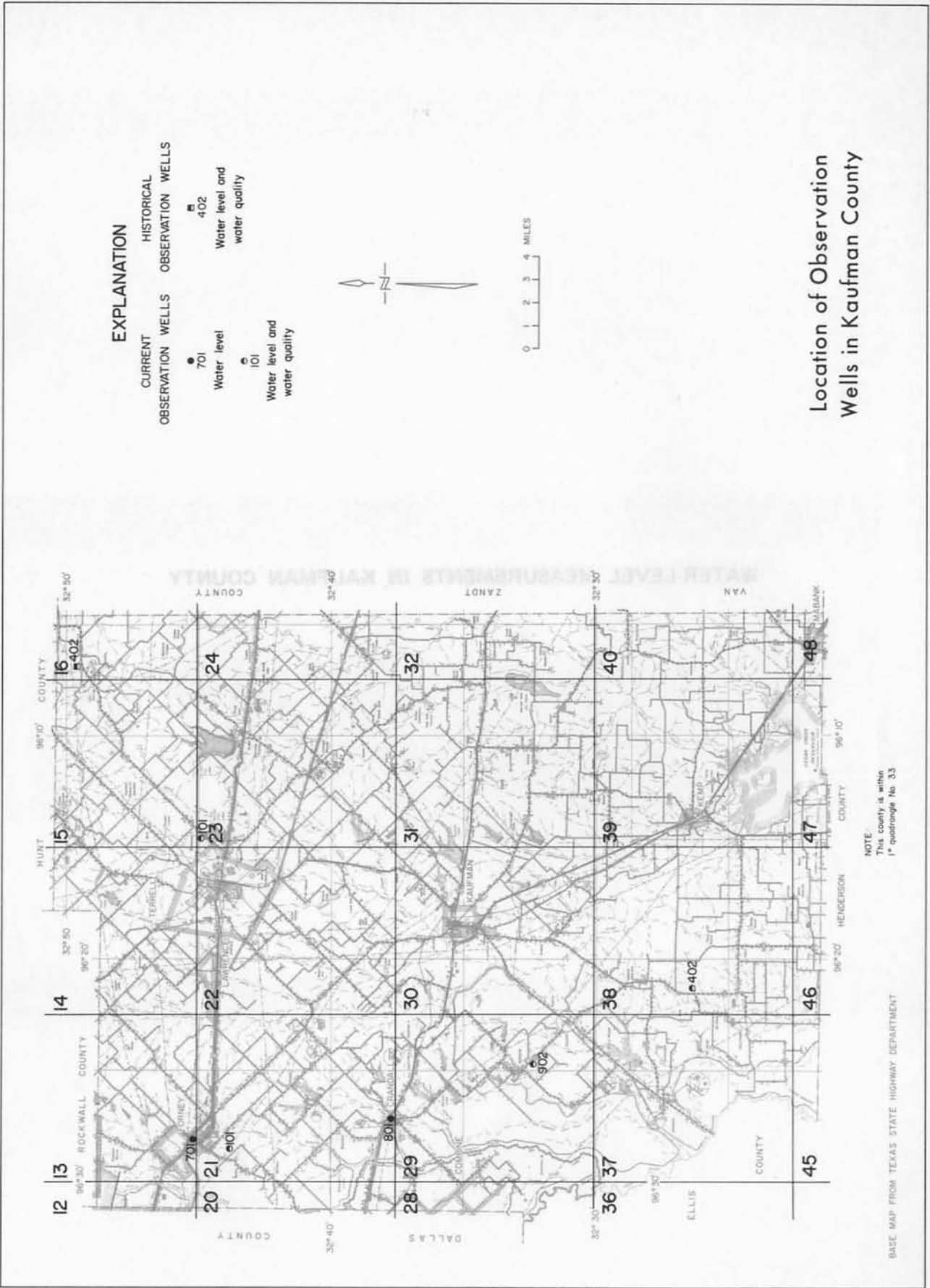
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### WATER-LEVEL MEASUREMENTS IN KAUFMAN COUNTY





**EXPLANATION**

<b>CURRENT</b>	<b>HISTORICAL</b>
<b>OBSERVATION WELLS</b>	<b>OBSERVATION WELLS</b>
● 701	■ 402
Water level	Water level and
○ 101	water quality
Water level and	
water quality	



**Location of Observation  
Wells in Kaufman County**

**NOTE**  
This county is within  
1' quadrangle No. 33

BASE MAP FROM TEXAS STATE HIGHWAY DEPARTMENT



KAUFMAN COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 @ MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
33-13-701	KCPA	3195	475.00	05-21-71	204.98		
				11-12-71	212.02	7.04	
				11-14-72	223.98	11.96	
				11-11-74	157.14		66.84
33-16-402	TM	15	540.00	05-24-71	9.38		
				11-12-71	10.59	1.21	
33-21-101	KGN	50	465.00	05-21-71	14.01		
				11-12-71	8.73		5.28
				11-14-72	41.40	32.67	
				11-09-73	1.68		39.72
11-11-74	0.90		2.58				
33-21-801	KGW	2340	423.00	07-05-61	280.25		
				05-21-71	290.43	10.18	
				11-12-71	291.44	1.01	
				11-14-72	294.24	2.80	
				11-09-73	299.45	5.21	
11-11-74	306.30	6.85					
33-23-101	KUNA	160	495.00	07-04-61	37.40		
				05-24-71	29.84		7.56
				11-12-71	27.36		2.48
				11-14-72	31.46	4.10	
11-12-73	26.12		5.34				
33-29-902	KGN	36	420.00	05-21-71	30.02		
				11-12-71	30.39	0.37	
				11-14-72	30.24		0.15
				11-12-73	29.75		0.49
				11-11-74	29.29		0.46
33-34-402	KGN	36	400.00	05-21-71	22.99		
				11-12-71	23.19	0.20	
				11-14-72	23.39	0.20	
				11-12-73	22.00		1.39
				11-11-74	21.50		0.50

KAUFMAN COUNTY

GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	33-16-402	33-21-101	33-21-101	33-23-101
DATE OF COLLECTION	05/26/71	05/21/71	11/12/71	07/06/61
AQUIFER CODE	TM	KGN	KGN	KGNA
WELL DEPTH	15	50	50	160
TEMPERATURE-F			62	
TEMPERATURE-C				
SILICA (MG/L)	50.0	21.0	22.0	15.0
CALCIUM (MG/L)	191.0	125.0	117.0	305.0
MAGNESIUM (MG/L)	21.0	16.0	15.0	89.0
SODIUM (MG/L)	144.0	242.0	233.0	756.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	610.0	409.0	411.0	432.0
SULFATE (MG/L)	138.0	161.0	135.0	1430.0
CHLORIDE (MG/L)	160.0	286.0	265.0	642.0
FLUORIDE (MG/L)	.8	.8	.7	.7
NITRATE (MG/L)	4.0	.4	.4	27.0
IRON (MG/L)				
PH	7.6	7.5	7.4	7.1
DISSOLVED SOLIDS (MG/L)	1008.0	1053.0	990.0	3477.0
PHENOL, ALK, CAC03	.0	.0	.0	
TOTAL ALK, CAC03	500.0	335.0	337.0	
TOTAL HARD CAC03	560.0	379.0	357.0	1130.0
% SODIUM	35.74	58.22	58.90	59.33
SAR	2.6	5.4	5.3	9.7
RSC	.0	.0	.0	.0
SPECIFIC CONDUCTANCE	1500.0	1660.0	1650.0	4730.0

## KAUFMAN COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	33-23-101	33-29-902	33-38-402
DATE OF COLLECTION	05/26/71	05/21/71	05/21/71
AQUIFER CODE	KGNA	KGN	KGN
WELL DEPTH	160	36	36
TEMPERATURE-F			
TEMPERATURE-C			
SILICA (MG/L)	7.0	28.0	27.0
CALCIUM (MG/L)	15.0	178.0	106.0
MAGNESIUM (MG/L)	5.0	12.0	9.0
SODIUM (MG/L)	580.0	109.0	188.0
POTASSIUM (MG/L)			
MANGANESE (MG/L)			
BORON (MG/L)			
BICARBONATE (MG/L)	500.0	580.0	399.0
SULFATE (MG/L)	348.0	18.0	108.0
CHLORIDE (MG/L)	396.0	161.0	189.0
FLUORIDE (MG/L)	1.3	.1	.4
NITRATE (MG/L)	.4	5.1	1.0
IRON (MG/L)			
PH	7.8	7.2	7.5
DISSOLVED SOLIDS (MG/L)	1598.0	796.0	824.0
PHENOL, ALK. CAC03	.0	.0	.0
TOTAL ALK. CAC03	410.0	472.0	327.0
TOTAL HARD CAC03	57.0	495.0	300.0
% SODIUM	95.60	32.45	57.56
SAR	33.1	2.1	4.7
RSC	7.0	.0	.5
SPECIFIC CONDUCTANCE	2450.0	1290.0	1300.0

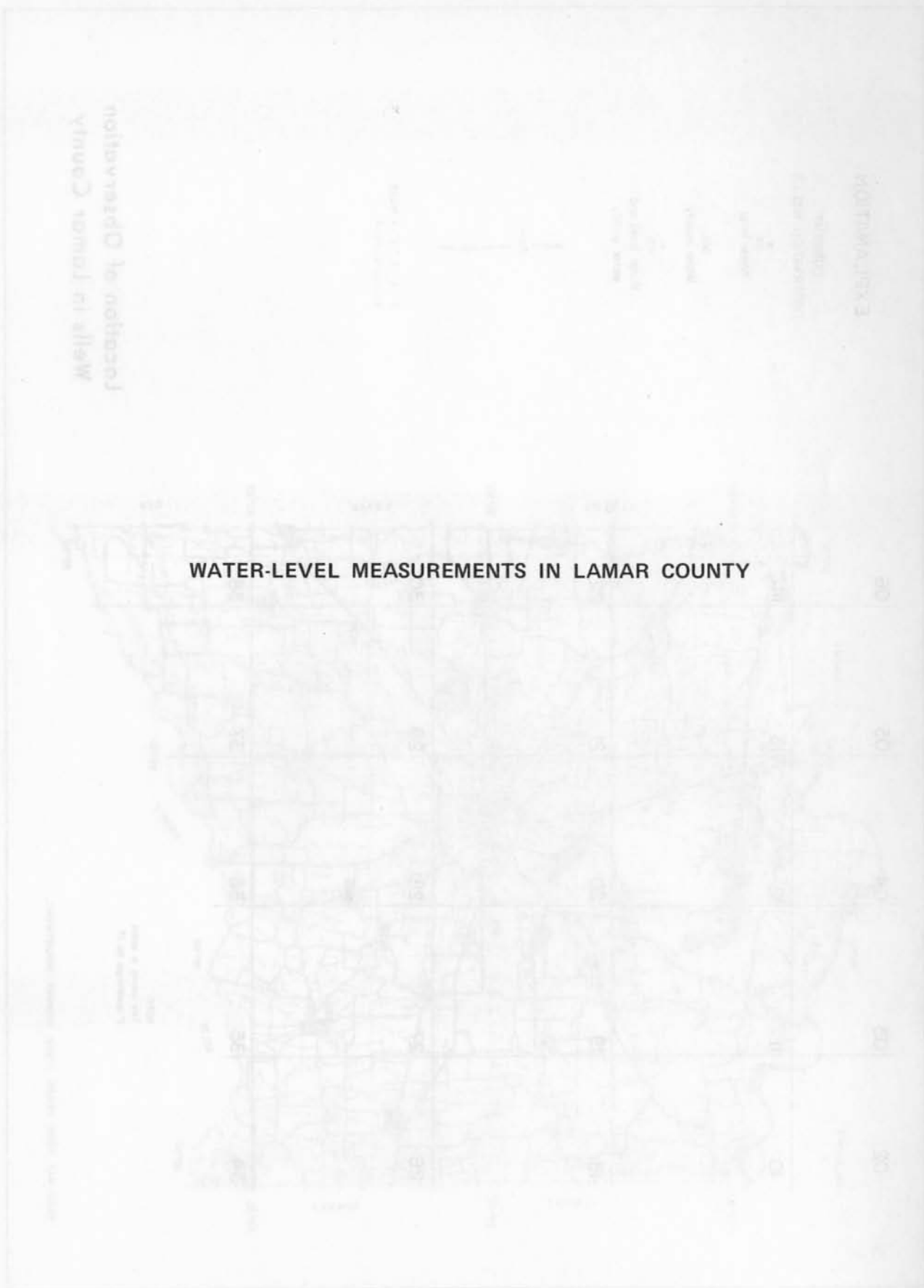
KAUFMAN COUNTY

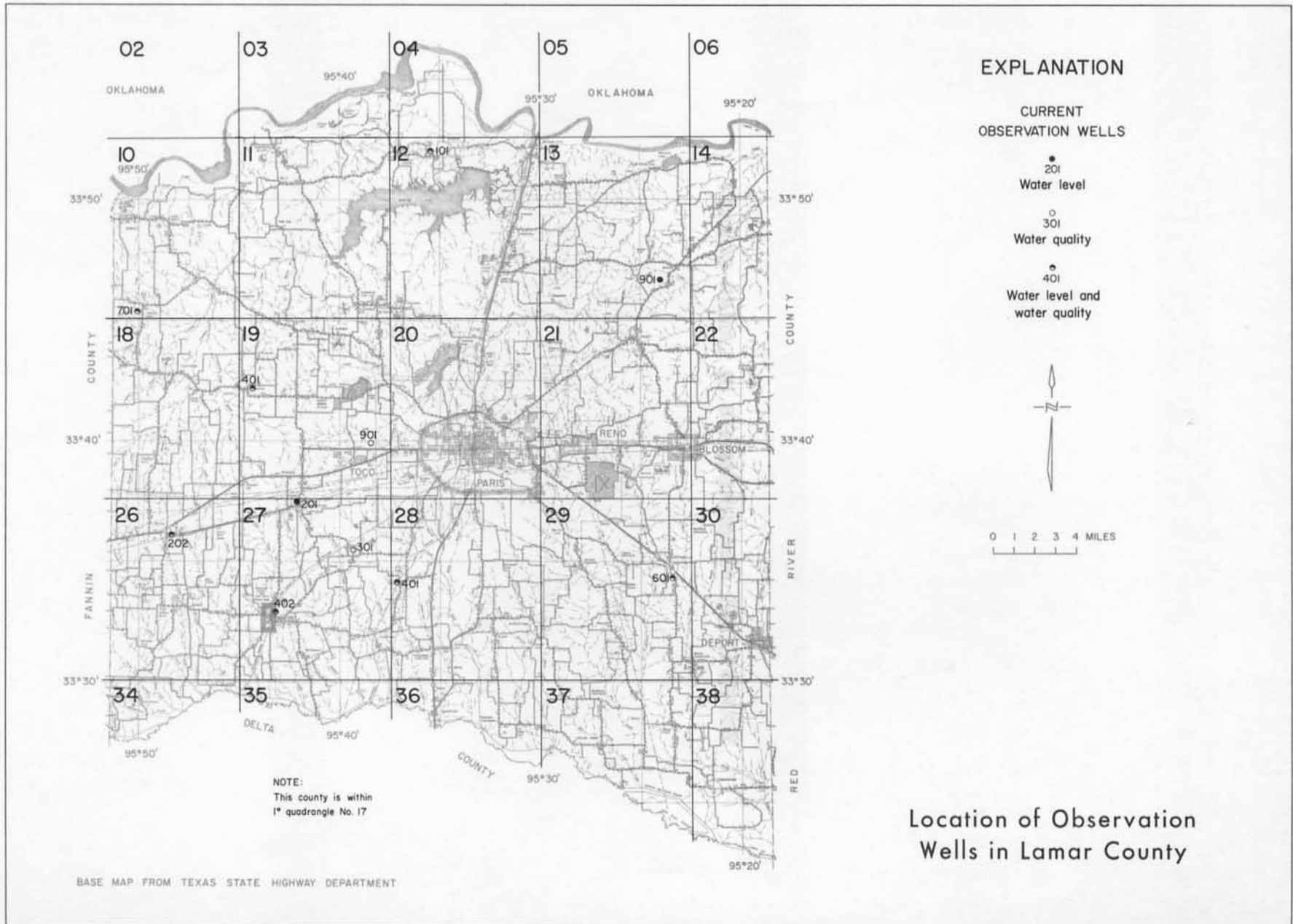
REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	224.64	.00	224.64
1956	100.65	.00	100.65
1957	100.65	.00	100.65
1958	84.01	.00	84.01
1959	81.43	.00	81.43
1960	80.65	.00	80.65
1961	76.72	.00	76.72
1962	61.37	.00	61.37
1963	67.51	.00	67.51
1964	67.51	.00	67.51
1965	22.09	.00	22.09
1966	.00	.00	.00
1967	.00	.00	.00
1968	.00	.00	.00
1969	.00	.00	.00
1970	.00	.00	.00
1971	.00	.00	.00
1972	.00	.00	.00
Total	967.23	.00	967.23

Water Level Measurements  
Location of Observation

WATER-LEVEL MEASUREMENTS IN LAMAR COUNTY





LAMAR COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BURE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
17-10-701	KGEF	104	560.00	05-24-71	57.29		
				11-10-71	59.80	2.51	
				11-14-72	59.68		0.12
				11-13-73	55.52		4.16
				11-06-74	58.10	2.58	
17-12-101	KGW	165	500.00	10-22-59	59.54		
				04-27-71	60.76	1.22	
				11-09-71	57.98		2.78
				11-14-72	57.93		0.05
				11-13-73	56.40		1.53
11-07-74	56.30		0.10				
17-13-901	KGW	140	520.00	12-27-59	68.38		
				04-27-71	67.16		1.22
				11-09-71	67.69	0.53	
				11-14-72	68.02	0.33	
				11-13-73	67.45		0.57
11-07-74	66.98		0.47				
17-19-401	KGA	50	560.00	05-24-71	9.07		
				11-10-71	10.48	1.41	
				11-14-72	10.12		0.36
				11-13-73	9.36		0.76
				11-06-74	7.50		1.86
17-26-202	KGW	1673	615.00	01-24-74	342.00		
				05-24-71	346.02	4.02	
				11-14-72	351.65	5.63	
				11-06-74	347.10		4.55
17-27-201	KGW	1675	595.00	05-24-71	328.53		
				11-10-71	330.72	2.19	
				11-13-73	339.02	8.30	
				11-06-74	348.80	9.78	
17-27-402	KGT	34	490.00	05-24-71	7.82		
				11-10-71	7.93	0.11	
				11-14-72	8.52	0.59	
				11-13-73	4.65		3.87
				11-06-74	5.54	0.89	
17-28-401	KGT	45	520.00	04-27-71	4.78		
				11-10-71	4.09		0.69

LAMAR COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 † MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				11-14-72	1.54		2.55
				11-13-73	1.84	0.30	
				11-07-74	1.49		0.35
17-29-601	KCPA	2644	483.00	05-25-71	93.94		
				11-09-71	95.28	1.34	
				11-14-72	99.21*	3.93	
				11-13-73	98.48		0.73
				11-07-74	100.24	1.76	



LAMAR COUNTY  
GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	17-10-701	17-10-701	17-12-101	17-12-101
DATE OF COLLECTION	05/24/71	11/10/71	04/27/71	11/09/71
AQUIFER CODE	KGEF	KGEF	KGW	KGW
WELL DEPTH	104	104	165	165
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	11.0	11.0	36.0	39.0
CALCIUM (MG/L)	7.0	6.0	19.0	34.0
MAGNESIUM (MG/L)	2.0	2.0	6.0	9.0
SODIUM (MG/L)	89.0	85.0	20.0	24.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	226.0	231.0	52.0	101.0
SULFATE (MG/L)	10.0	5.0	5.0	6.0
CHLORIDE (MG/L)	12.0	8.0	47.0	58.0
FLUORIDE (MG/L)	.6	.5	.1	.1
NITRATE (MG/L)	.4	.4	2.4	.4
IRON (MG/L)				
PH	7.6	8.2	6.1	6.6
DISSOLVED SOLIDS (MG/L)	243.0	231.0	161.0	220.0
PHENOL. ALK. CaCO3	.0	.0	.0	.0
TOTAL ALK. CaCO3	185.0	189.0	43.0	83.0
TOTAL HARD CaCO3	24.0	25.0	73.0	120.0
% SODIUM	88.28	88.85	37.63	29.99
SAR	7.6	7.6	1.0	.9
RSC	3.1	3.3	.0	.0
SPECIFIC CONDUCTANCE	386.0	382.0	251.0	355.0

## LAMAR COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	17-19-401	17-19-901	17-26-202	17-27-301
DATE OF COLLECTION	05/24/71	10/01/69	05/24/71	08/15/74
AQUIFER CODE	KGA	KGBL	KGW	KCPA
WELL DEPTH	50	27	1673	2592
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	16.0	38.0	15.0	16.0
CALCIUM (MG/L)	103.0	11.0	2.0	5.0
MAGNESIUM (MG/L)	10.0	2.0	1.0	5.0
SODIUM (MG/L)	78.0	85.0	391.0	407.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	195.0	129.0	590.0	790.0
SULFATE (MG/L)	281.0	52.0	155.0	149.0
CHLORIDE (MG/L)	12.0	29.0	153.0	72.0
FLUORIDE (MG/L)	.6	.3	1.9	3.8
NITRATE (MG/L)	5.5	17.0	1.5	3.1
IRON (MG/L)				
PH	7.2	7.6	8.2	8.3
DISSOLVED SOLIDS (MG/L)	601.0	297.0	1010.0	1049.3
PHENOL. ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	160.0	106.0	482.0	640.0
TOTAL HARD CAC03	298.0	35.0	11.0	34.0
% SODIUM	36.26	83.82	98.94	96.40
SAR	1.9	6.1	56.3	30.8
RSC	.0	1.4	9.4	12.2
SPECIFIC CONDUCTANCE	851.0	439.0	1590.0	1640.0

## LAMAR COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	17-27-402	17-27-402	17-28-401	17-28-401
DATE OF COLLECTION	05/24/71	11/13/73	04/27/71	11/13/73
AQUIFER CODE	KGT	KGT	KGT	KGT
WELL DEPTH	34	34	45	45
TEMPERATURE-F		66		67
TEMPERATURE-C				
SILICA (MG/L)	21.0	20.0	17.0	20.0
CALCIUM (MG/L)	170.0	121.0	136.0	118.0
MAGNESIUM (MG/L)	7.0	5.0	10.0	7.0
SODIUM (MG/L)	29.0	15.0	24.0	25.0
POTASSIUM (MG/L)			66.0	68.0
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	378.0	265.0	281.0	345.0
SULFATE (MG/L)	61.0	41.0	107.0	67.0
CHLORIDE (MG/L)	37.0	16.0	53.0	51.0
FLUORIDE (MG/L)	.4	.5	.3	.3
NITRATE (MG/L)	104.0	82.0	119.0	63.0
IRON (MG/L)				
PH	7.3	7.4	7.4	7.5
DISSOLVED SOLIDS (MG/L)	615.0	430.8	670.0	588.9
PHENOL. ALK. CaCO3	.0	.0	.0	.0
TOTAL ALK. CaCO3	310.0	217.0	230.0	283.0
TOTAL HARD CaCO3	454.0	322.0	382.0	325.0
% SODIUM	12.22	9.18	10.09	11.70
SAR	.5	.3	.5	.6
RSC	.0	.0	.0	.0
SPECIFIC CONDUCTANCE	911.0	660.0	978.0	915.0

LAMAR COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	17-29-601	17-29-601
DATE OF COLLECTION	05/25/71	11/09/71
AQUIFER CODE	KCPA	KCPA
WELL DEPTH	2644	2644
TEMPERATURE-F		
TEMPERATURE-C		
SILICA (MG/L)	20.0	21.0
CALCIUM (MG/L)	6.0	5.0
MAGNESIUM (MG/L)	3.0	4.0
SODIUM (MG/L)	472.0	457.0
POTASSIUM (MG/L)		
MANGANESE (MG/L)		
BORON (MG/L)		
BICARBONATE (MG/L)	710.0	710.0
SULFATE (MG/L)	180.0	186.0
CHLORIDE (MG/L)	187.0	173.0
FLUORIDE (MG/L)	4.1	3.7
NITRATE (MG/L)	.4	.4
IRON (MG/L)		
PH	8.1	8.2
DISSOLVED SOLIDS (MG/L)	1221.0	1199.0
PHENOL, ALK. CAC03	.0	.0
TOTAL ALK. CAC03	580.0	580.0
TOTAL HARD CAC03	27.0	27.0
% SODIUM	97.40	97.17
SAR	39.2	36.9
RSC	11.0	11.0
SPECIFIC CONDUCTANCE	1870.0	1880.0

LAMAR COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	56.00	.00	56.00
1956	67.20	.00	67.20
1957	67.20	.00	67.20
1958	67.51	.00	67.51
1959	78.97	.00	78.97
1960	92.06	.00	92.06
1961	46.03	.00	46.03
1962	30.22	.00	30.22
1963	58.32	.00	58.32
1964	31.86	.00	31.86
1965	58.79	.00	58.79
1966	70.73	.00	70.73
1967	74.40	.00	74.40
1968	82.66	.00	82.66
1969	92.86	.00	92.86
1970	93.57	.00	93.57
1971	105.56	.00	105.56
1972	119.34	.00	119.34
Total	1,293.28	.00	1,293.28

LAMAR COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PURCHASE

YEAR	MUNICIPAL PURCHASE (ACRE-FEET)	INDUSTRIAL PURCHASE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PURCHASE (ACRE-FEET)
1960	80.00	00.00	80.00
1961	84.30	00.00	84.30
1962	87.30	00.00	87.30
1963	87.51	00.00	87.51
1964	78.91	00.00	78.91
1965	82.00	00.00	82.00
1966	88.83	00.00	88.83
1967	88.35	00.00	88.35
1968	81.58	00.00	81.58
1969	88.74	00.00	88.74
1970	70.73	00.00	70.73
1971	74.43	00.00	74.43
1972	83.88	00.00	83.88
1973	87.98	00.00	87.98
1974	88.87	00.00	88.87
1975	108.88	00.00	108.88
1976	118.24	00.00	118.24
Total	1,583.38	00.00	1,583.38

Water in Montague County  
Location of Organization

Montague County  
Water Control District

Montague County  
Water Control District

Montague County  
Water Control District

Montague County  
Water Control District

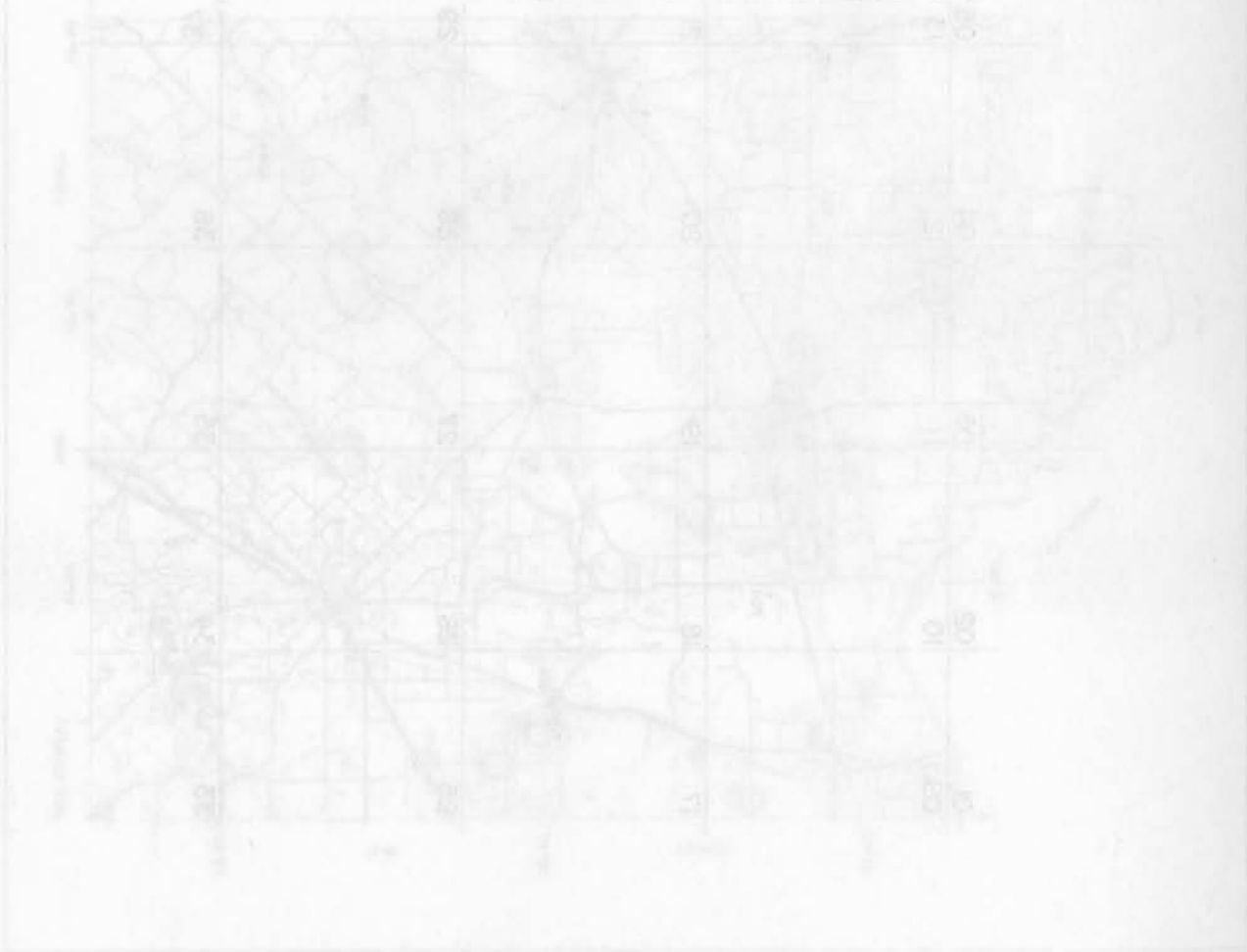
Montague County  
Water Control District

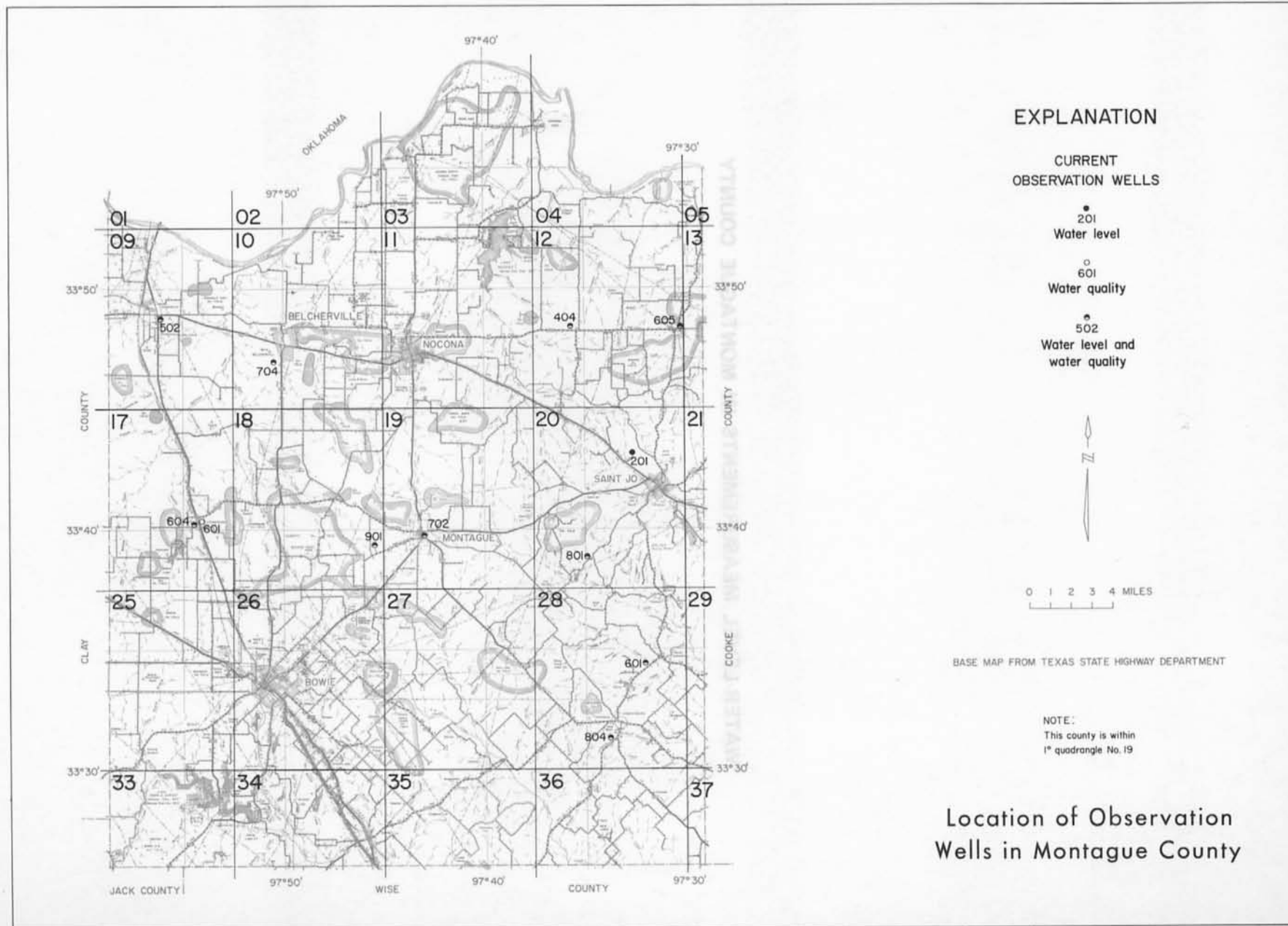
Montague County  
Water Control District

Montague County  
Water Control District

Montague County  
Water Control District

WATER-LEVEL MEASUREMENTS IN MONTAGUE COUNTY







MONTAGUE COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 W MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
19-09-502	PLW	54	920.00	07-21-71	20.32		
				11-03-71	17.70		2.62
				11-15-72	13.85		3.85
				11-09-73	13.88*	0.03	
				11-13-74	13.64		0.24
19-10-704	PLW	252	926.00	11-03-71	106.00*		
				11-15-72	105.85		0.15
				11-09-73	110.73	4.88	
				11-13-74	106.82		3.91
19-12-404	KCA	306	1028.00	09-09-70	128.85		
				11-03-71	143.00	14.15	
				11-15-72	143.58	0.58	
				11-09-73	144.36W	0.78	
19-12-605	KCA	148	902.00	09-09-70	112.83		
				02-27-71	112.25		0.58
				11-03-71	112.30	0.05	
				11-16-72	112.02		0.28
				11-09-73	112.64	0.62	
11-13-74	112.00		0.64				
19-17-604	PLW	100	940.00	07-21-71	34.89		
				11-03-71	32.90		1.99
				11-16-72	32.75		0.15
				11-09-73	30.45*		2.30
				11-13-74	29.94		0.51
19-18-901	KCA	243	1152.00	11-03-71	102.00		
				11-16-72	101.36		0.64
				11-09-73	100.92		0.44
				11-13-74	101.00	0.08	
19-19-702	KCA	260	1070.00	11-03-71	160.40		
				11-16-72	160.79	0.39	
				11-09-73	159.05		1.74
				11-13-74	167.29	8.24	
19-20-201	KCA	128	1172.00	09-09-70	44.19		
				02-27-71	36.71		7.48
				11-03-71	37.38	0.67	
				11-16-72	37.39	0.01	

MONTAGUE COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 † MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	ARTIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				11-09-73	35.60		1.79
				11-13-74	34.71		0.89
19-20-R01	KCA	128	1062.00	09-09-70	67.92		
				02-27-71	41.10		26.82
				11-03-71	37.25		3.85
				11-16-72	33.88		3.37
				11-09-73	30.14		3.74
				11-13-74	26.04		4.10
19-2R-R01	KCA	200	1025.00	09-10-70	109.04		
				02-27-71	112.30	3.26	
				11-02-71	116.30	4.00	
				11-14-72	108.20		8.10
				11-09-73	117.94*	9.74	
				11-13-74	118.30	0.36	
19-2R-R04	KCA	250	1115.00	09-10-70	116.80		
				07-21-71	129.82	13.02	
				11-02-71	112.80		17.02
				11-10-73	106.12		6.68
				11-13-74	108.54	2.42	

MONTAGUE COUNTY  
GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER DATE OF COLLECTION	19-09-502 07/21/71	19-10-704 07/22/71	19-12-404 02/27/71	19-12-605 02/27/71
AQUIFER CODE	PLW	PLW	KCA	KCA
WELL DEPTH	54	252	306	148
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	12.0	10.0	10.0	24.0
CALCIUM (MG/L)	68.0	1.0	14.0	100.0
MAGNESIUM (MG/L)	32.0	2.0	6.0	28.0
SODIUM (MG/L)	96.0	250.0	123.0	45.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	370.0	489.0	304.0	346.0
SULFATE (MG/L)	40.0	24.0	30.0	24.0
CHLORIDE (MG/L)	86.0	68.0	27.0	99.0
FLUORIDE (MG/L)	.7	1.7	.2	.2
NITRATE (MG/L)	36.0	.4	.4	6.0
IRON (MG/L)				
PH	7.6	8.7	8.0	7.2
DISSOLVED SOLIDS (MG/L)	552.0	597.0	360.0	496.0
PHENOL. ALK. CAC03	.0	12.0	.0	.0
TOTAL ALK. CAC03	303.0	425.0	249.0	284.0
TOTAL HARD CAC03	299.0	10.0	58.0	364.0
% SODIUM	40.93	98.06	81.78	21.16
SAR	2.4	33.2	6.9	1.0
RSC	.0	7.8	3.7	.0
SPECIFIC CONDUCTANCE	900.0	978.0	578.0	839.0

MONTAGUE COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	19-17-601	19-17-601	19-17-604	19-17-604
DATE OF COLLECTION	03/06/64	09/09/71	07/21/71	11/09/73
AQUIFER CODE	PLW	PLW	PLW	PLW
WELL DEPTH	114	114	100	100
TEMPERATURE-F	67			
TEMPERATURE-C				
SILICA (MG/L)	15.0	14.0	14.0	15.0
CALCIUM (MG/L)	25.0	28.0	158.0	147.0
MAGNESIUM (MG/L)	21.0	26.0	66.0	57.0
SODIUM (MG/L)	86.0	81.0	106.0	98.0
POTASSIUM (MG/L)		1.0		
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	299.0	298.0	239.0	214.0
SULFATE (MG/L)	36.0	40.0	119.0	90.0
CHLORIDE (MG/L)	36.0	41.0	258.0	247.0
FLUORIDE (MG/L)	.8	.7	.5	.5
NITRATE (MG/L)	.4	.4	246.0	242.0
IRON (MG/L)				
PH	7.7	7.8	7.4	7.3
DISSOLVED SOLIDS (MG/L)	367.2	378.6	1085.0	1001.7
PHENOL. ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	245.0	244.0	196.0	175.0
TOTAL HARD CAC03	147.0	177.0	670.0	600.0
% SODIUM	55.70	49.73	25.72	26.17
SAR	3.0	2.6	1.7	1.7
RSC	1.9	1.3	.0	.0
SPECIFIC CONDUCTANCE	636.0	620.0	1680.0	1600.0

## MONTAGUE COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	19-18-901	19-18-901	19-19-702	19-19-702
DATE OF COLLECTION	07/22/71	11/09/73	05/05/61	02/14/64
AQUIFER CODE	KCA	KCA	KCA	KCA
WELL DEPTH	243	243	260	260
TEMPERATURE-F				66
TEMPERATURE-C				
SILICA (MG/L)	20.0	19.0	12.0	11.0
CALCIUM (MG/L)	91.0	91.0	12.0	18.0
MAGNESIUM (MG/L)	18.0	17.0	6.0	2.0
SODIUM (MG/L)	10.0	11.0	89.0	86.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	355.0	357.0	263.0	264.0
SULFATE (MG/L)	10.0	11.0	20.0	19.0
CHLORIDE (MG/L)	9.0	11.0	7.0	7.0
FLUORIDE (MG/L)	.1	.1	.3	.3
NITRATE (MG/L)	.4	.8	2.5	.4
IRON (MG/L)				
PH	7.5	7.4	7.7	8.1
DISSOLVED SOLIDS (MG/L)	333.0	336.4	278.1	273.5
PHENOL. ALK. CAC03	.0			.0
TOTAL ALK. CAC03	291.0	293.0		216.0
TOTAL HARD CAC03	300.0	296.0	56.0	54.0
% SODIUM	6.73	7.45	77.99	77.87
SAR	.2	.2	5.2	5.1
RSC	.0	.0	3.2	3.2
SPECIFIC CONDUCTANCE	530.0	560.0		471.0

## MONTAGUE COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	19-19-702	19-20-801	19-28-601	19-28-804
DATE OF COLLECTION	07/22/71	02/27/71	07/21/71	07/21/71
AQUIFER CODE	KCA	KCA	KCA	KCA
WELL DEPTH	260	128	200	250
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	11.0	18.0	19.0	20.0
CALCIUM (MG/L)	20.0	130.0	80.0	145.0
MAGNESIUM (MG/L)	8.0	24.0	14.0	14.0
SODIUM (MG/L)	86.0	14.0	200.0	23.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	272.0	393.0	400.0	397.0
SULFATE (MG/L)	22.0	84.0	151.0	67.0
CHLORIDE (MG/L)	17.0	13.0	151.0	51.0
FLUORIDE (MG/L)	.2	.4	.3	.3
NITRATE (MG/L)	1.5	14.0	12.0	.4
IRON (MG/L)				
PH	7.8	7.4	7.3	7.4
DISSOLVED SOLIDS (MG/L)	299.0	490.0	823.9	515.0
PHENOL. ALK. CaCO3	.0	.0	.0	.0
TOTAL ALK. CaCO3	223.0	322.0	328.0	325.0
TOTAL HARD CaCO3	84.0	423.0	259.0	423.0
% SODIUM	69.31	6.71	62.84	10.65
SAR	4.1	.2	5.4	.4
RSC	2.8	.0	1.4	.0
SPECIFIC CONDUCTANCE	490.0	755.0	1250.0	801.0

MONTAGUE COUNTY  
SUMMARY OF GROUND WATER QUALITY  
AQUIFER KCA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	10.00	29.00	20.46	22.00	66.66	15
CALCIUM (CA)	14.00	226.00	116.86	107.00	33.33	15
MAGNESIUM (MG)	5.00	45.00	18.66	17.00	40.00	15
SODIUM (NA)	13.00	123.00	62.46	67.00	53.33	15
BICARBONATE (HCO3)	304.00	451.00	391.26	408.00	60.00	15
SULFATE (SO4)	24.00	156.00	66.73	64.00	33.33	15
CHLORIDE (CL)	7.00	246.00	74.33	61.00	46.66	15
FLUORIDE (F)	0.10	0.40	0.25	0.20	40.00	15
NITRATE (NO3)	0.00	34.00	7.62	6.00	33.33	15
TOTAL DISSOLVED SOLIDS (TDS)	358.00	929.69	564.29	508.25	46.66	15
HARDNESS (CAC03)	58.00	610.00	368.86	359.00	40.00	15
SPECIFIC CONDUCTANCE	578.00	1550.00	926.64	839.00	50.00	14
PH	6.90	8.00	7.30	7.30	33.33	15
PERCENT SODIUM	6.71	81.78	26.81	23.94	40.00	15
SAR	0.29	6.93	1.65	1.28	46.66	15
RSC	0.00	3.79	0.39	0.00	20.00	15

MONTAGUE COUNTY

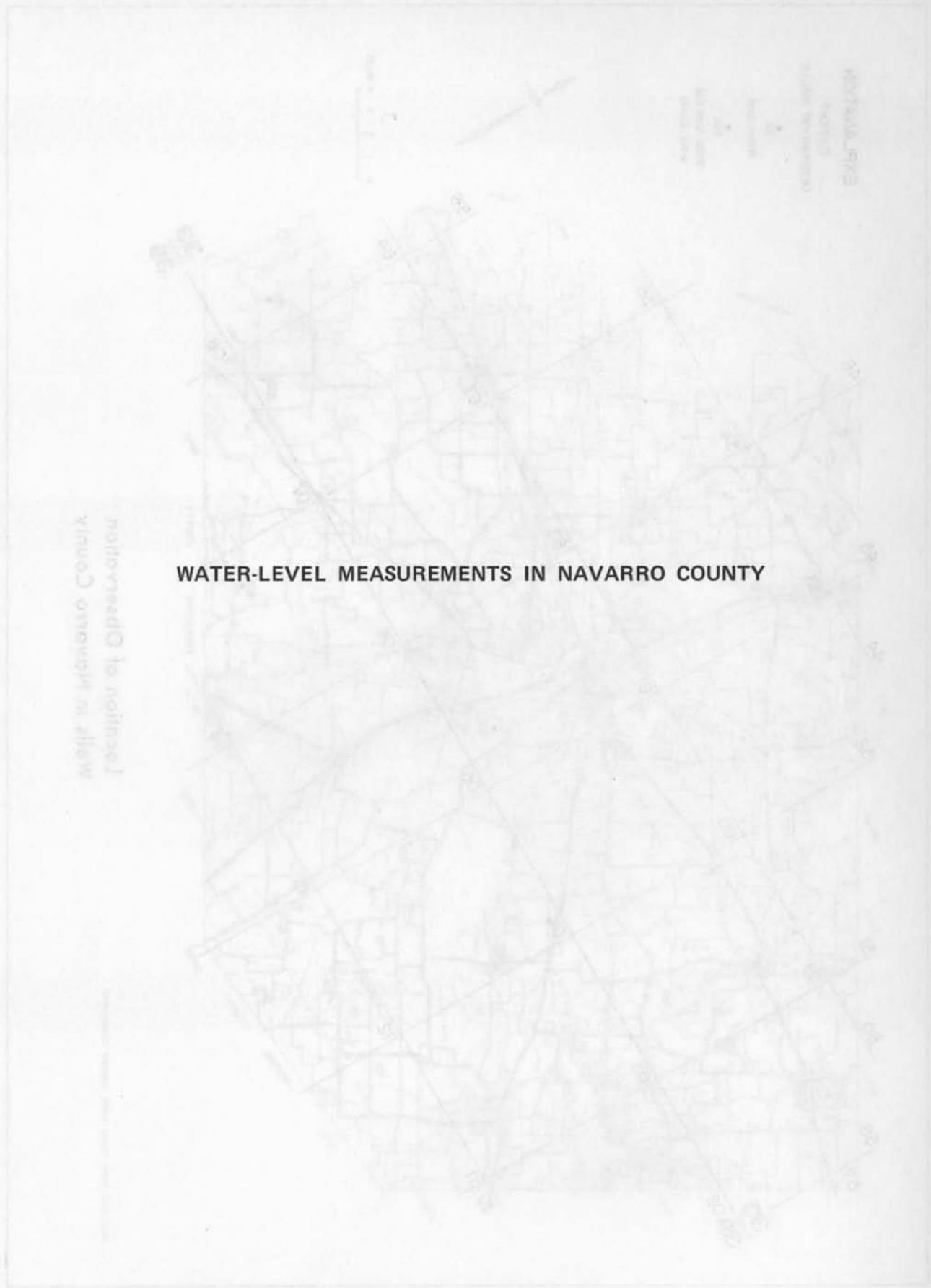
REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	537.11	3.92	541.03
1956	600.35	5.82	606.17
1957	507.22	5.82	513.04
1958	314.23	4.06	318.29
1959	372.32	.22	372.54
1960	357.71	23.18	380.89
1961	296.88	7.79	304.67
1962	444.24	107.84	552.08
1963	128.06	111.29	239.35
1964	521.36	112.86	634.22
1965	126.52	98.78	225.30
1966	132.02	98.73	230.75
1967	164.62	47.05	211.67
1968	161.23	4.60	165.83
1969	161.92	5.52	167.44
1970	174.14	5.52	179.66
1971	166.68	.00	166.68
1972	174.87	.00	174.87
Total	5,341.48	643.00	5,984.48



Map of Hidalgo County  
Location of Observation

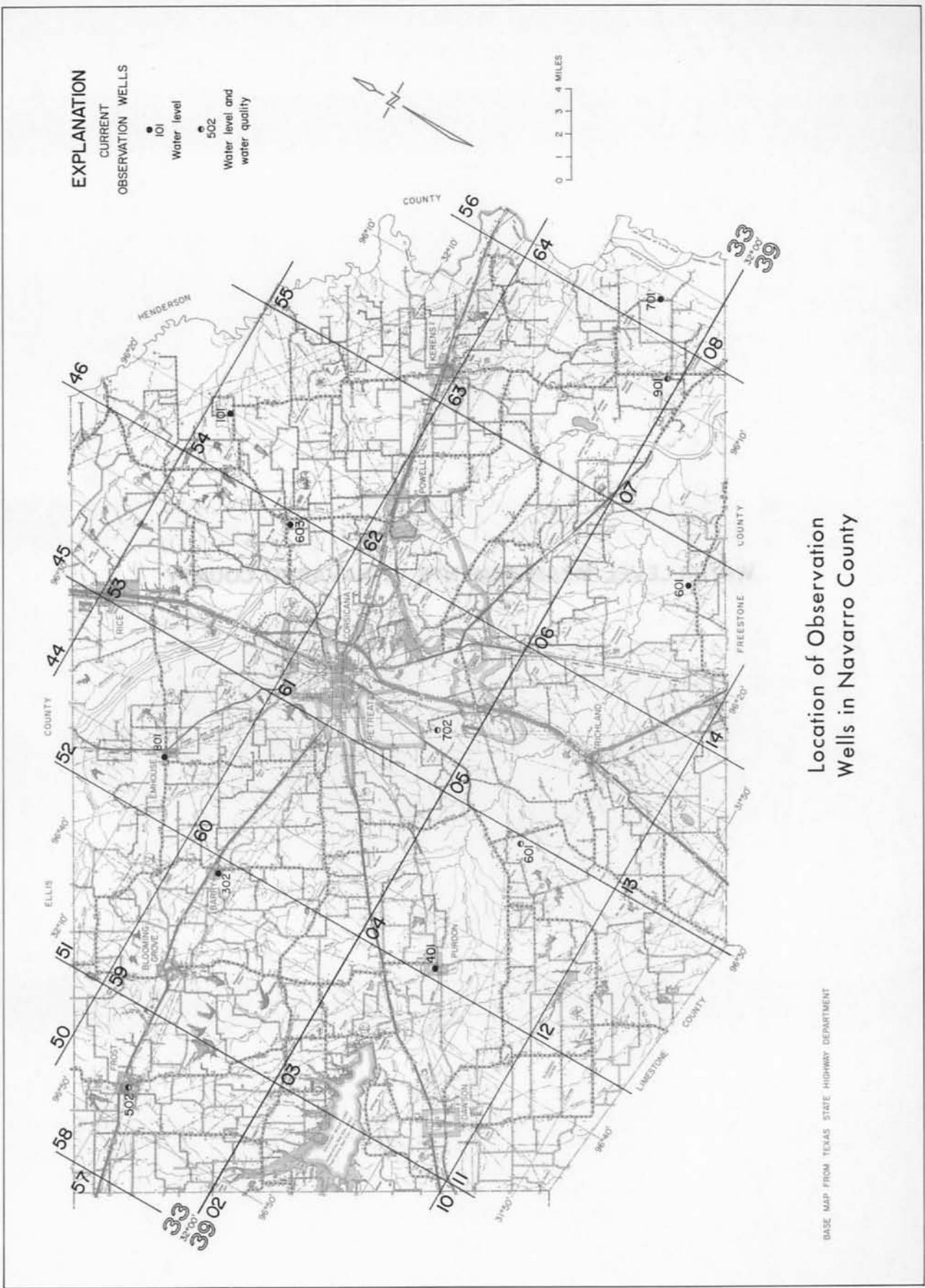
### WATER-LEVEL MEASUREMENTS IN NAVARRO COUNTY



**EXPLANATION**

CURRENT  
OBSERVATION WELLS

- 101 Water level
- 502 Water level and water quality



Location of Observation  
Wells in Navarro County

BASE MAP FROM TEXAS STATE HIGHWAY DEPARTMENT

NAVARRO COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	ARTIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
33-52-801	KGW	1750	473.00	08-26-65	300.00			
				08-26-65	412.75	112.75		
				12-01-67	435.99	23.24		
				05-07-68	434.90		1.09	
				01-25-71	430.96		3.94	
				11-12-71	418.55 <sup>Q</sup>		12.41	
				11-17-72	424.60 <sup>Q</sup>	6.05		
11-05-73	419.00 <sup>Q</sup>		5.60					
33-53-603	KGRN	259	426.00	08-07-62	95.00			
				02-07-68	105.60	10.60		
				01-28-71	94.06		11.54	
				11-17-71	82.32		11.74	
11-17-72	85.55	3.23						
33-54-101	DAL	42	312.00	04-16-68	26.20			
				01-28-71	30.30	4.10		
				11-12-71	28.95		1.35	
				11-17-72	33.00	4.05		
				11-05-73	28.27		4.73	
11-15-74	32.80	4.53						
33-54-502	KGW	1290	520.00	07-18-68	345.60			
				01-25-71	331.24		14.36	
33-59-302	KGN	1721	503.00	09-20-17	18.00			
				01-30-68	382.89	364.89		
				01-25-71	382.98	0.09		
				11-12-71	379.18		3.80	
11-17-72	381.90	2.72						
33-61-702	KGRN	241	451.00	06-13-68	69.80			
				01-29-71	72.43	2.63		
				11-12-71	73.18	0.75		
				11-17-72	75.13	1.95		
				11-06-73	73.50		1.63	
11-15-74	72.83		0.67					
33-63-901	TWI	58	327.00	03-18-68	49.35			
				01-26-71	47.62		1.73	
				11-12-71	48.64	1.02		
				11-17-72	48.68	0.04		
				11-05-73	48.79	0.11		
				11-15-74	47.97		0.82	

NAVARRO COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 † MEASUREMENT QUESTIONED DUE TO BUREAU HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE			
33-64-701	TWI	84	334.00	03-28-68	64.30						
				01-26-71	63.68		0.62				
				11-12-71	63.41		0.27				
				11-17-72	63.43	0.02					
				11-05-73	63.82	0.39					
				11-15-74	63.71		0.11				
39-04-401	KGV	1750	396.00	06-29-61	281.70						
				05-08-64	364.60	82.90					
				01-24-71	383.52	18.92					
				11-12-71	384.85	1.33					
				11-17-72	385.86	1.01					
				11-05-73	361.90	23.96					
39-04-601	KGN	120	336.00	05-08-68	44.90						
				01-26-71	46.89	1.99					
				11-12-71	70.82	23.93					
				11-17-72	26.96	43.86					
				11-05-73	35.01	8.05					
				11-15-74	24.00	11.01					
39-06-601	T41	26	402.00	05-02-68	21.64						
				01-26-71	19.70	1.94					
				11-12-71	21.42	1.72					
				11-17-72	21.56	0.14					
				11-06-73	20.53	1.03					
				11-15-74	20.44	0.09					

NAVARRO COUNTY  
GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	33-58-502	33-58-502	33-61-702	33-61-702
DATE OF COLLECTION	07/18/68	11/12/71	06/13/68	02/08/71
AQUIFER CODE	KGW	KGW	KGNA	KGNA
WELL DEPTH	1290	1290	241	241
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	13.0	14.0	11.0	13.0
CALCIUM (MG/L)	4.0	5.0	8.0	7.0
MAGNESIUM (MG/L)	2.0	3.0	1.0	2.0
SODIUM (MG/L)	846.0	830.0	582.0	580.0
POTASSIUM (MG/L)	3.1		2.6	
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	924.0	940.0	514.0	510.0
SULFATE (MG/L)	372.0	368.0	205.0	194.0
CHLORIDE (MG/L)	500.0	498.0	455.0	460.0
FLUORIDE (MG/L)	4.7	5.3	1.0	1.0
NITRATE (MG/L)	.5	.4	11.0	3.0
IRON (MG/L)				
PH	8.2	8.3	7.9	8.0
DISSOLVED SOLIDS (MG/L)	2199.0	2185.0	1529.0	1510.0
PHENOL. ALK. CAC03		.0		.0
TOTAL ALK. CAC03		770.0		420.0
TOTAL HARD CAC03	15.0	28.0	24.0	24.0
% SODIUM	98.81	98.64	97.88	98.00
SAR	86.2	72.4	51.6	49.7
RSC	14.7	14.9	7.9	7.8
SPECIFIC CONDUCTANCE	3560.0	3330.0	2680.0	2360.0

NAVARRO COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	33-61-702	33-63-901	33-63-901	39-04-601
DATE OF COLLECTION	11/06/73	03/18/68	11/12/71	11/12/71
AQUIFER CODE	KGNA	TWI	TWI	KGNA
WELL DEPTH	241	58	58	120
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	12.0	32.0	32.0	17.0
CALCIUM (MG/L)	6.0	298.0	306.0	3.0
MAGNESIUM (MG/L)	2.0	14.0	18.0	1.0
SODIUM (MG/L)	570.0	17.0	18.0	299.0
POTASSIUM (MG/L)		2.4		
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	510.0	540.0	550.0	550.0
SULFATE (MG/L)	202.0	162.0	170.0	28.0
CHLORIDE (MG/L)	462.0	93.0	89.0	118.0
FLUORIDE (MG/L)	1.0	.3	.3	.7
NITRATE (MG/L)	.8	113.0	128.0	.4
IRON (MG/L)				
PH	7.6		6.9	8.5
DISSOLVED SOLIDS (MG/L)	1506.5	997.0	1031.0	737.0
PHENOL, ALK. CAC03	.0		.0	5.0
TOTAL ALK. CAC03	422.0		454.0	461.0
TOTAL HARD CAC03	23.0	801.0	841.0	12.0
% SODIUM	98.16	4.39	4.46	98.24
SAR	51.4	.2	.2	38.1
RSC	7.8	.0	.0	8.7
SPECIFIC CONDUCTANCE	2470.0	1500.0	1490.0	1250.0

NAVARRO COUNTY  
SUMMARY OF GROUND WATER QUALITY  
AQUIFER KGNA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	11.00	36.00	19.75	15.00	33.33	12
CALCIUM (CA)	3.00	216.00	33.91	7.00	16.66	12
MAGNESIUM (MG)	1.00	20.00	3.50	2.00	16.66	12
SODIUM (NA)	68.00	611.00	388.75	317.00	41.66	12
BICARBONATE (HCO3)	399.00	620.00	495.75	510.00	58.33	12
SULFATE (SO4)	12.00	320.00	142.75	129.00	41.66	12
CHLORIDE (CL)	39.00	462.00	272.91	248.00	41.66	12
FLUORIDE (F)	0.40	1.80	0.89	0.80	50.00	12
NITRATE (NO3)	0.10	24.00	4.09	1.00	25.00	12
TOTAL DISSOLVED SOLIDS (TDS)	454.00	1588.00	1113.29	932.00	50.00	12
HARDNESS (CACO3)	12.00	622.00	98.41	24.00	16.66	12
SPECIFIC CONDUCTANCE	734.00	2680.00	1857.00	1620.00	50.00	12
PH	7.10	8.50	7.81	7.70	50.00	12
PERCENT SODIUM	37.29	98.54	86.35	97.79	75.00	12
SAR	1.88	65.27	34.44	37.83	58.33	12
RSC	0.00	9.83	6.53	7.84	66.66	12



NAVARRO COUNTY

SUMMARY OF GROUND WATER QUALITY--Continued

AQUIFER KGW

COUNTY TY - AQUIFER KGW

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	12.00	18.00	15.00	14.00	30.00	10
CALCIUM (CA)	4.00	15.00	7.00	6.00	27.27	11
MAGNESIUM (MG)	1.00	5.00	2.72	2.00	36.36	11
SODIUM (NA)	594.00	1808.00	1036.54	945.00	27.27	11
BICARBONATE (HCO3)	705.00	1580.00	1038.81	1040.00	45.45	11
SULFATE (SO4)	69.00	520.00	306.90	351.00	54.54	11
CHLORIDE (CL)	131.00	1790.00	770.81	588.00	27.27	11
FLUORIDE (F)	2.10	6.10	3.89	4.20	54.54	11
NITRATE (NO3)	0.40	20.00	5.39	2.20	36.36	11
TOTAL DISSOLVED SOLIDS (TDS)	1557.00	6380.00	2824.72	2398.00	27.27	11
HARDNESS (CAC03)	13.00	55.00	28.09	26.00	27.27	11
SPECIFIC CONDUCTANCE	2510.00	6060.00	4063.00	3560.00	30.00	10
PH	7.50	8.30	7.82	7.70	40.00	10
PERCENT SODIUM	62.36	99.04	95.28	98.64	81.81	11
SAR	60.69	103.29	85.21	88.60	63.63	11
RSC	11.09	24.73	16.44	16.58	45.45	11



NAVARRO COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	.00	.00	.00
1956	.00	.00	.00
1957	.00	.00	.00
1958	.00	.00	.00
1959	.00	.00	.00
1960	.00	.00	.00
1961	.00	.00	.00
1962	.00	.00	.00
1963	.00	.00	.00
1964	.00	.00	.00
1965	.00	.00	.00
1966	.00	.00	.00
1967	.00	.00	.00
1968	.00	.00	.00
1969	.00	.00	.00
1970	.00	.00	.00
1971	.00	.00	.00
1972	204.66	1.64	206.30
Total	204.66	1.64	206.30

WYANDOT COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-Feet)	INDUSTRIAL PUMPAGE (ACRE-Feet)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-Feet)
1957	0.00	0.00	0.00
1958	0.00	0.00	0.00
1959	0.00	0.00	0.00
1960	0.00	0.00	0.00
1961	0.00	0.00	0.00
1962	0.00	0.00	0.00
1963	0.00	0.00	0.00
1964	0.00	0.00	0.00
1965	0.00	0.00	0.00
1966	0.00	0.00	0.00
1967	0.00	0.00	0.00
1968	0.00	0.00	0.00
1969	0.00	0.00	0.00
1970	0.00	0.00	0.00
1971	0.00	0.00	0.00
1972	0.00	0.00	0.00
1973	0.00	0.00	0.00
1974	0.00	0.00	0.00
1975	0.00	0.00	0.00
1976	0.00	0.00	0.00
1977	0.00	0.00	0.00
1978	0.00	0.00	0.00
1979	0.00	0.00	0.00
1980	0.00	0.00	0.00
1981	0.00	0.00	0.00
1982	0.00	0.00	0.00
1983	0.00	0.00	0.00
1984	0.00	0.00	0.00
1985	0.00	0.00	0.00
1986	0.00	0.00	0.00
1987	0.00	0.00	0.00
1988	0.00	0.00	0.00
1989	0.00	0.00	0.00
1990	0.00	0.00	0.00
1991	0.00	0.00	0.00
1992	0.00	0.00	0.00
1993	0.00	0.00	0.00
1994	0.00	0.00	0.00
1995	0.00	0.00	0.00
1996	0.00	0.00	0.00
1997	0.00	0.00	0.00
1998	0.00	0.00	0.00
1999	0.00	0.00	0.00
2000	0.00	0.00	0.00
2001	0.00	0.00	0.00
2002	0.00	0.00	0.00
2003	0.00	0.00	0.00
2004	0.00	0.00	0.00
2005	0.00	0.00	0.00
2006	0.00	0.00	0.00
2007	0.00	0.00	0.00
2008	0.00	0.00	0.00
2009	0.00	0.00	0.00
2010	0.00	0.00	0.00
2011	0.00	0.00	0.00
2012	0.00	0.00	0.00
2013	0.00	0.00	0.00
2014	0.00	0.00	0.00
2015	0.00	0.00	0.00
2016	0.00	0.00	0.00
2017	0.00	0.00	0.00
2018	0.00	0.00	0.00
2019	0.00	0.00	0.00
2020	0.00	0.00	0.00
2021	0.00	0.00	0.00
2022	0.00	0.00	0.00
2023	0.00	0.00	0.00
2024	0.00	0.00	0.00
2025	0.00	0.00	0.00
2026	0.00	0.00	0.00
2027	0.00	0.00	0.00
2028	0.00	0.00	0.00
2029	0.00	0.00	0.00
2030	0.00	0.00	0.00
Total	0.00	0.00	0.00

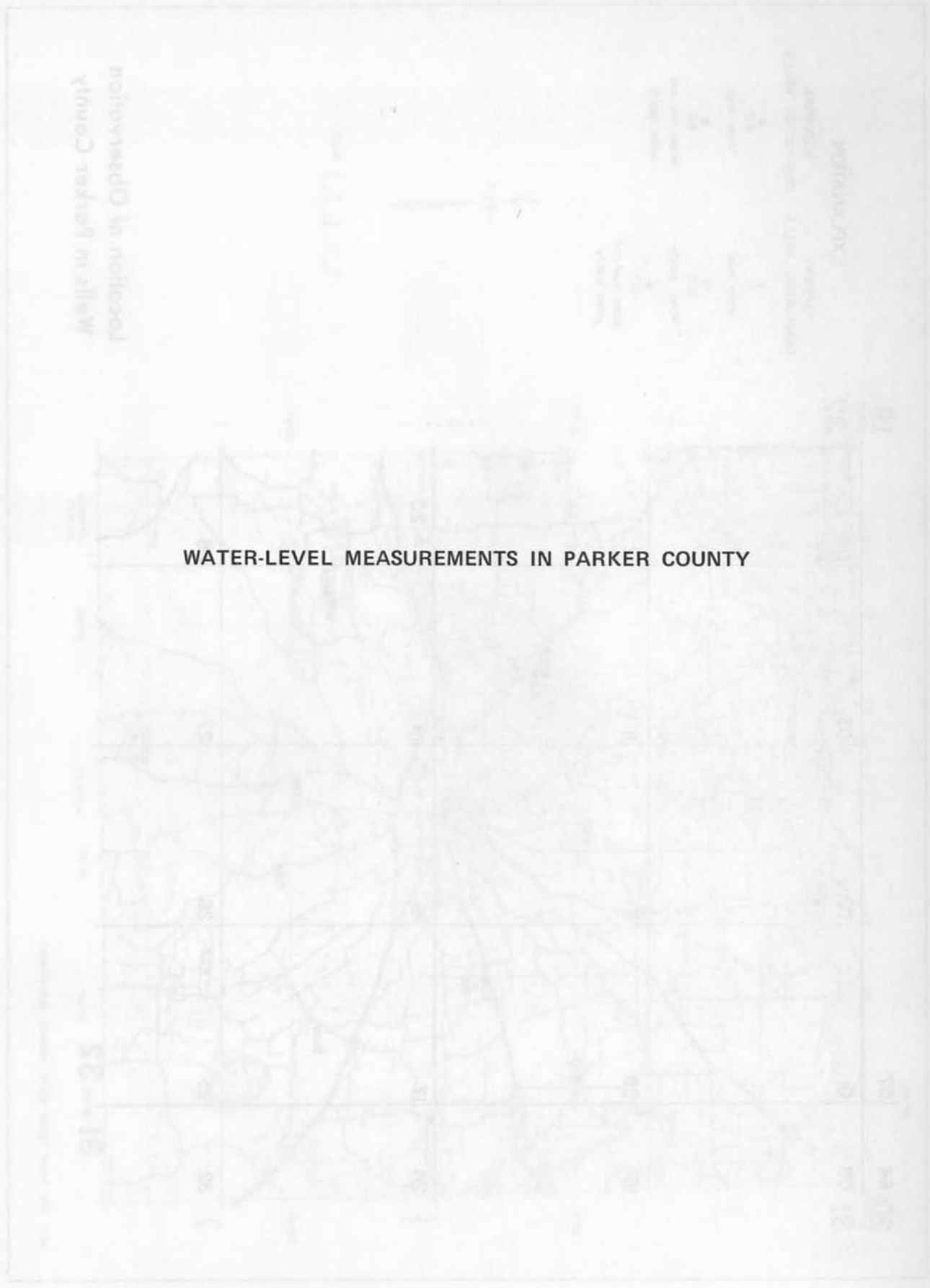
Map of Parker County  
Location of Observation

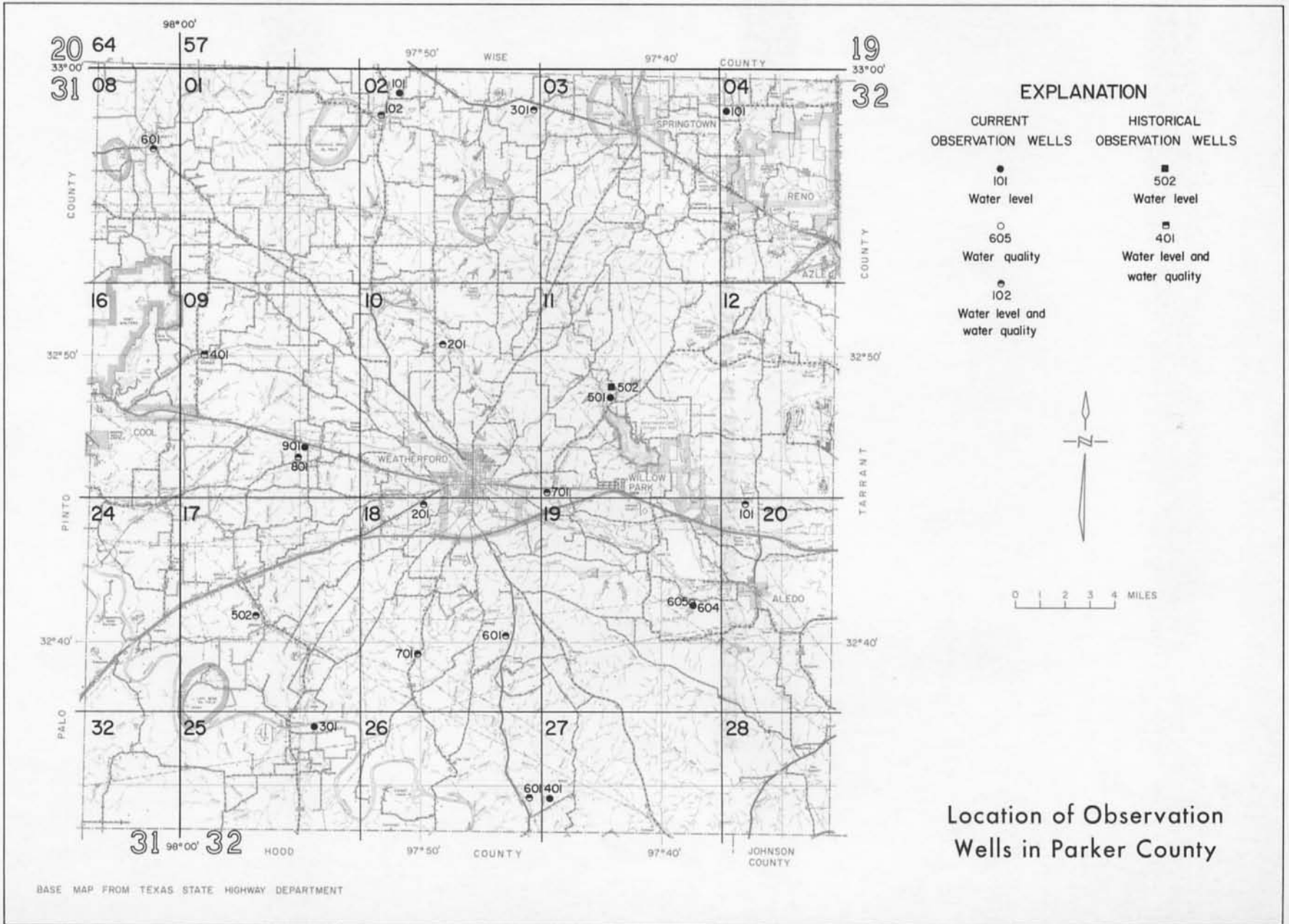
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WATER-LEVEL MEASUREMENTS IN PARKER COUNTY





PARKER COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
31-08-601	KCFM	60	1110.00	12-20-49	38.80		
				02-10-71	40.58	1.78	
				10-31-71	39.60		0.98
				11-16-72	40.04	0.44	
				11-09-73	39.82		0.22
				11-13-74	39.18		0.64
32-02-101	KCPA	80	1150.00	11-25-49	52.00		
				02-09-71	41.92		10.08
				10-29-71	42.58	0.66	
				11-16-72	42.66	0.08	
				11-09-73	41.89		0.77
				11-13-74	40.60		1.29
32-02-102	KCPA	30	1130.00	06-30-71	24.76		
				10-29-71	25.09	0.33	
				11-16-72	26.96	1.87	
				11-09-73	23.88		3.08
				11-13-74	24.05	0.17	
32-02-301	KCPA	109	1040.00	11-30-49	33.70		
				02-09-71	28.34		5.36
				10-29-71	32.51	4.17	
				11-16-72	33.30	0.79	
				11-12-73	33.98	0.68	
				11-13-74	32.34		1.64
32-04-101	KCPA	60	800.00	11-16-45	35.60		
				02-09-71	44.68	9.08	
				10-29-71	41.92		2.76
32-09-401	KCFM	30	955.00	11-22-48	10.10		
				02-10-71	9.33		0.77
				10-31-71	12.56	3.23	
32-09-801	KCPA	45	1060.00	02-11-71	37.86		
				10-31-71	36.76	0.90	
				11-16-72	39.33	0.57	
				11-09-73	36.38		2.95
				11-13-74	38.45	2.07	
32-09-901	KCPA	110	1045.00	11-09-49	34.10		
				02-11-71	34.51	0.41	
				10-31-71	35.97	1.46	

PARKER COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

MEASUREMENT QUESTIONED DUE TO SURF HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
32-10-201	KCPA	165	1110.00	11-14-72	36.79	0.82		
				11-09-73	35.93			0.86
				11-13-74	32.98			2.95
				06-29-71	28.09			
				10-29-71	19.88			8.21
				11-14-72	19.08			0.80
				11-09-73	19.62	0.54		
				11-13-74	23.26*	3.64		
32-11-501	KCPA	70	910.00	02-09-71	35.22			
				10-30-71	37.03	1.81		
				11-15-72	38.92	1.89		
				11-09-73	37.41			1.51
				11-13-74	35.20			2.21
32-11-502	KCPA	58	920.00	02-09-71	32.62			
				10-30-71	35.06	2.44		
				11-15-72	36.75	1.69		
32-11-701	KCPA	120	940.00	02-11-71	40.14			
				10-30-71	35.12			5.02
				11-15-72	36.79	1.67		
				11-09-73	34.50			2.29
				11-13-74	30.00			4.50
32-17-502	KCTM	21	840.00	02-21-50	13.90			
				02-08-71	14.67	0.97		
				10-31-71	15.60	0.73		
				11-15-72	14.96			0.64
				11-12-73	14.14			0.82
				11-13-74	14.13			0.01
32-18-201	KCPA	96	1110.00	11-22-49	46.80			
				02-08-71	42.85			3.95
				10-31-71	44.40	1.55		
				11-15-72	45.86	1.46		
				11-09-73	40.14			5.72
				11-13-74	38.07			2.07
32-18-601	KCPA	125	995.00	06-30-71	51.61			
				10-30-71	47.02			4.59
				11-14-72	51.36	4.34		
				11-09-73	38.70			12.66
				11-13-74	31.80			6.90

PARKER COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 @ MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-14-701	KCTM	204	850.00	02-11-71	96.93		
				10-31-71	111.20	14.27	
				11-16-72	108.25		2.95
				11-12-73	113.78	5.53	
				11-13-74	108.14		5.64
32-19-604	KCPA	228	870.00	06-29-71	33.04		
				10-30-71	32.20		0.84
				11-16-72	33.12	0.92	
				11-12-73	31.59		1.53
				11-14-74	30.12		1.47
32-20-101	KCPA	357	1020.00	12-04-49	259.90		
				07-09-71	263.15	3.25	
				10-30-71	268.60*	5.45	
				11-12-73	271.24*	2.64	
32-25-301	GAL	40	740.00	02-23-50	28.00		
				02-09-71	29.45	1.45	
				10-31-71	30.87	1.42	
				11-15-72	31.56	0.69	
				11-12-73	31.14		0.42
32-26-601	KCTM	310	885.00	03-01-50	82.20		
				02-11-71	95.11	12.91	
				10-30-71	89.70		5.41
				11-16-72	96.44	6.74	
				11-09-73	118.80	22.36	
32-27-401	KCPA	50	925.00	03-01-50	39.50		
				02-11-71	39.44		0.06
				10-30-71	41.20*	1.76	
				11-16-72	40.56		0.64
				11-09-73	42.01	1.45	
11-12-74	40.75		1.26				

PARKER COUNTY

GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER DATE OF COLLECTION	31-08-601 12/20/49	31-08-601 02/10/71	31-08-601 11/09/73	32-02-102 06/30/71
AQUIFER CODE	KCTM	KCTM	KCTM	KCPA
WELL DEPTH	60	60	60	30
TEMPERATURE-F			68	
TEMPERATURE-C				
SILICA (MG/L)	19.0	16.0	15.0	19.0
CALCIUM (MG/L)	98.0	137.0	153.0	134.0
MAGNESIUM (MG/L)	56.0	71.0	79.0	80.0
SODIUM (MG/L)	35.0	94.0	95.0	121.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	399.0	418.0	411.0	465.0
SULFATE (MG/L)	83.0	165.0	201.0	163.0
CHLORIDE (MG/L)	66.0	149.0	170.0	208.0
FLUORIDE (MG/L)	.0	.3	.4	.5
NITRATE (MG/L)	55.0	110.0	170.0	85.0
IRON (MG/L)				
PH	7.2	7.5	7.4	7.2
DISSOLVED SOLIDS (MG/L)	608.1	947.0	1085.4	1039.0
PHENOL. ALK. CAC03		.0	.0	.0
TOTAL ALK. CAC03		343.0	337.0	381.0
TOTAL HARD CAC03	75.0	630.0	710.0	660.0
% SODIUM	13.81	24.39	22.62	28.40
SAR	.6	1.6	1.5	2.0
RSC	.0	.0	.0	.0
SPECIFIC CONDUCTANCE		1450.0	1610.0	1600.0



PARKER COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-02-301	32-09-401	32-09-801	32-10-201
DATE OF COLLECTION	02/09/71	06/30/71	02/11/71	06/29/71
AQUIFER CODE	KCPA	KCTM	KCPA	KCPA
WELL DEPTH	109	30	45	165
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	24.0	23.0	15.0	28.0
CALCIUM (MG/L)	71.0	178.0	127.0	90.0
MAGNESIUM (MG/L)	17.0	38.0	54.0	20.0
SODIUM (MG/L)	94.0	127.0	81.0	25.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	440.0	384.0	620.0	376.0
SULFATE (MG/L)	44.0	234.0	19.0	33.0
CHLORIDE (MG/L)	32.0	229.0	121.0	11.0
FLUORIDE (MG/L)	.8	.9	.4	.4
NITRATE (MG/L)	.4	.4	1.5	4.0
IRON (MG/L)				
PH	7.5	7.3	7.3	7.4
DISSOLVED SOLIDS (MG/L)	499.0	1019.0	723.0	396.0
PHENOL, ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	361.0	315.0	510.0	308.0
TOTAL HARD CAC03	245.0	600.0	540.0	306.0
% SODIUM	45.28	31.51	24.63	15.05
SAR	2.6	2.2	1.5	.6
RSC	2.2	.0	.0	.0
SPECIFIC CONDUCTANCE	780.0	1540.0	1200.0	606.0

PARKER COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-11-701	32-17-502	32-18-201	32-18-601
DATE OF COLLECTION	02/11/71	02/08/71	02/08/71	06/30/71
AQUIFER CODE	KCPA	KCTM	KCPA	KCPA
WELL DEPTH	120	21	96	125
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	20.0	32.0	20.0	21.0
CALCIUM (MG/L)	85.0	95.0	101.0	105.0
MAGNESIUM (MG/L)	45.0	17.0	20.0	17.0
SODIUM (MG/L)	46.0	20.0	13.0	16.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	459.0	372.0	397.0	336.0
SULFATE (MG/L)	69.0	21.0	13.0	34.0
CHLORIDE (MG/L)	29.0	12.0	12.0	34.0
FLUORIDE (MG/L)	.1	.7	.1	.2
NITRATE (MG/L)	.4	2.0	.4	1.0
IRON (MG/L)				
PH	7.4	7.4	7.6	7.2
DISSOLVED SOLIDS (MG/L)	520.0	382.0	374.0	393.0
PHENOL, ALK. CaCO3	.0	.0	.0	.0
TOTAL ALK. CaCO3	376.0	305.0	325.0	275.0
TOTAL HARD CaCO3	398.0	308.0	336.0	332.0
% SODIUM	20.12	12.41	7.79	9.49
SAR	1.0	.4	.3	.3
RSC	.0	.0	.0	.0
SPECIFIC CONDUCTANCE	825.0	583.0	602.0	628.0

PARKER COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-18-701	32-19-605	32-20-101	32-26-601
DATE OF COLLECTION	02/11/71	06/29/71	06/29/71	06/30/71
AQUIFER CODE	KCTM	KCPA	KCPA	KCTM
WELL DEPTH	204	63	357	310
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	17.0	21.0	20.0	20.0
CALCIUM (MG/L)	76.0	119.0	83.0	67.0
MAGNESIUM (MG/L)	24.0	13.0	15.0	71.0
SODIUM (MG/L)	19.0	12.0	14.0	70.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	349.0	344.0	312.0	590.0
SULFATE (MG/L)	25.0	77.0	36.0	86.0
CHLORIDE (MG/L)	10.0	7.0	5.0	28.0
FLUORIDE (MG/L)	.4	.2	.2	.4
NITRATE (MG/L)	.4	.4	.4	.4
IRON (MG/L)				
PH	7.6	7.2	7.4	7.8
DISSOLVED SOLIDS (MG/L)	343.0	418.0	327.0	632.0
PHENOL. ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	286.0	282.0	256.0	484.0
TOTAL HARD CAC03	289.0	349.0	270.0	459.0
% SODIUM	12.53	6.93	10.17	24.90
SAR	.4	.2	.3	1.4
RSC	.0	.0	.0	.4
SPECIFIC CONDUCTANCE	560.0	630.0	510.0	980.0

PARKER COUNTY  
 SUMMARY OF GROUND WATER QUALITY  
 AQUIFER KCPA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	13.00	28.00	19.90	20.00	60.00	10
CALCIUM (CA)	10.00	127.00	86.70	85.00	50.00	10
MAGNESIUM (MG)	7.00	54.00	23.20	17.00	30.00	10
SODIUM (NA)	12.00	126.00	44.60	19.00	40.00	10
BICARBONATE (HCO3)	312.00	620.00	395.40	349.00	40.00	10
SULFATE (SO4)	13.00	77.00	40.10	34.00	40.00	10
CHLORIDE (CL)	5.00	121.00	26.70	11.00	40.00	10
FLUORIDE (F)	0.00	0.80	0.28	0.20	40.00	10
NITRATE (NO3)	0.40	4.20	1.31	0.40	30.00	10
TOTAL DISSOLVED SOLIDS (TDS)	327.00	723.00	436.80	393.00	30.00	10
HARDNESS (CAC03)	55.00	540.00	312.00	306.00	50.00	10
SPECIFIC CON- DUCTANCE	510.00	1200.00	693.80	606.00	30.00	10
PH	7.20	7.80	7.44	7.40	40.00	10
PERCENT SODIUM	6.93	83.60	23.55	12.53	30.00	10
SAR	0.27	7.47	1.50	0.48	30.00	10
RSC	0.00	4.18	0.64	0.00	20.00	10

PARKER COUNTY

SUMMARY OF GROUND WATER QUALITY--Continued

AQUIFER KCTM

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	10.00	32.00	17.23	16.00	30.76	13
CALCIUM (CA)	1.00	178.00	70.13	67.00	46.66	15
MAGNESIUM (MG)	1.00	79.00	29.93	20.00	33.33	15
SODIUM (NA)	16.00	317.00	111.33	95.00	46.66	15
BICARBONATE (HCO3)	328.00	590.00	429.38	411.00	23.07	13
SULFATE (SO4)	16.00	234.00	86.26	83.00	40.00	15
CHLORIDE (CL)	0.00	229.00	65.26	42.00	33.33	15
FLUORIDE (F)	0.00	0.90	0.30	0.20	33.33	15
NITRATE (NO3)	0.00	170.00	22.93	0.40	20.00	15
TOTAL DISSOLVED SOLIDS (TDS)	125.60	1085.48	584.24	515.95	40.00	15
HARDNESS (CACO3)	4.00	710.00	273.86	291.00	46.66	15
SPECIFIC CONDUCTANCE	573.00	1610.00	1006.58	819.00	41.66	12
PH	7.10	8.70	7.58	7.40	20.00	15
PERCENT SODIUM	10.67	98.56	45.72	28.50	33.33	15
SAR	0.40	40.49	8.84	1.62	20.00	15
RSC	0.00	9.12	2.55	0.00	38.46	13

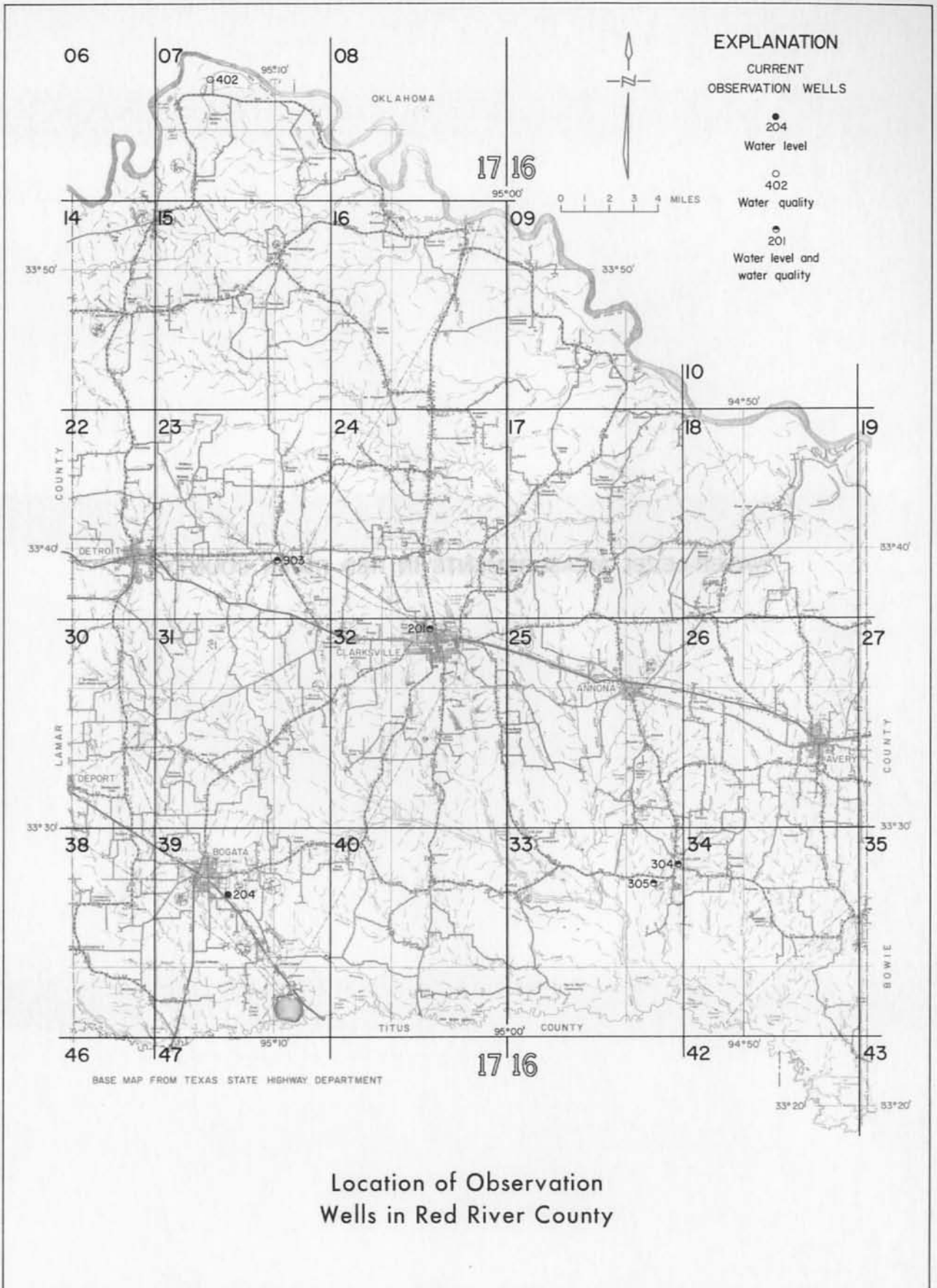
PARKER COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	787.99	168.26	956.25
1956	890.75	168.26	1,059.01
1957	950.56	168.26	1,118.82
1958	.00	145.17	145.17
1959	.00	80.87	80.87
1960	.00	161.30	161.30
1961	.00	177.43	177.43
1962	45.87	169.59	215.46
1963	61.45	168.02	229.47
1964	62.18	168.02	230.20
1965	234.37	168.02	402.39
1966	251.02	168.02	419.04
1967	288.09	168.02	456.11
1968	312.89	160.53	473.42
1969	363.02	187.20	550.22
1970	427.27	236.03	663.30
1971	492.90	.00	492.90
1972	610.29	219.75	830.04
Total	5,778.65	2,882.75	8,661.40









RED RIVER COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 W MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
16-33-304	KGN	182	345.00	05-25-71	0.26		
				11-08-71	3.64	3.38	
				11-15-72	5.06	1.42	
				11-14-73	2.05		3.01
				11-08-74	3.42	1.37	
16-33-305	KGN	180	348.00	05-25-71	10.68		
				11-09-71	11.60	0.92	
				11-15-72	14.30	2.70	
				11-14-73	10.00		4.30
17-07-402	KCPA	406	390.00	04-24-71	+ 28.61		
				11-09-71	+ 10.13	18.48	
				11-14-73	+ 26.30		16.17
17-23-903	KGBL	243	485.00	-----46	50.00		
				11-15-72	98.12	48.12	
				11-14-73	83.46		14.66
				11-08-74	89.36	5.90	
17-32-201	KGBL	602	440.00	11-09-59	169.60		
				11-----46	210.00	40.40	
				11-09-71	303.00	93.00	
				11-14-73	305.75	2.75	
				11-08-74	311.02	5.27	
17-39-204	KGN	105	389.00	11-10-59	21.67		
				04-24-71	25.48	3.81	
				11-09-71	37.06*	11.58	
				11-14-72	39.12	2.06	
				11-14-73	24.19		14.93
				11-07-74	22.52		1.67

RED RIVER COUNTY

GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	16-33-304	16-33-305	17-07-402	17-23-903
DATE OF COLLECTION	05/25/71	05/25/71	04/26/71	05/25/71
AQUIFER CODE	KGN	KGN	KCPA	KGBL
WELL DEPTH	182	180	406	243
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	24.0	17.0	12.0	11.0
CALCIUM (MG/L)	145.0	52.0	54.0	5.0
MAGNESIUM (MG/L)	24.0	10.0	9.0	3.0
SODIUM (MG/L)	38.0	70.0	25.0	640.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	349.0	242.0	195.0	730.0
SULFATE (MG/L)	180.0	96.0	17.0	357.0
CHLORIDE (MG/L)	45.0	15.0	34.0	302.0
FLUORIDE (MG/L)	.4	.2	.1	2.6
NITRATE (MG/L)	1.0	6.0	.4	2.5
IRON (MG/L)				
PH	7.4	7.5	7.3	8.3
DISSOLVED SOLIDS (MG/L)	629.0	385.0	247.0	1682.0
PHENOL, ALK. CaCO3	.0	.0	.0	.0
TOTAL ALK. CaCO3	286.0	198.0	160.0	600.0
TOTAL HARD CaCO3	461.0	172.0	174.0	23.0
% SODIUM	15.21	47.12	24.04	98.24
SAR	.7	2.3	.8	55.8
RSC	.0	.5	.0	11.4
SPECIFIC CONDUCTANCE	914.0	594.0	425.0	2510.0

RED RIVER COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	17-32-201	17-32-201	17-32-201
DATE OF COLLECTION	09/21/43	04/26/71	11/09/71
AQUIFER CODE	KGBL	KGBL	KGBL
WELL DEPTH	602	602	602
TEMPERATURE-F			
TEMPERATURE-C			
SILICA (MG/L)	15.0	13.0	12.0
CALCIUM (MG/L)	5.0	4.0	3.0
MAGNESIUM (MG/L)	1.0	2.0	1.0
SODIUM (MG/L)	384.0	367.0	317.0
POTASSIUM (MG/L)	4.8		
MANGANESE (MG/L)			
BORON (MG/L)			
BICARBONATE (MG/L)	377.0	423.0	459.0
SULFATE (MG/L)	201.0	150.0	131.0
CHLORIDE (MG/L)	204.0	211.0	127.0
FLUORIDE (MG/L)	.4	.7	.6
NITRATE (MG/L)	2.0	.4	.4
IRON (MG/L)			
PH	8.4	8.8	8.6
DISSOLVED SOLIDS (MG/L)	1002.5	956.0	817.0
PHENOL. ALK. CAC03		17.0	9.0
TOTAL ALK. CAC03		381.0	394.0
TOTAL HARD CAC03	17.0	18.0	11.0
% SODIUM	97.35	97.77	98.34
SAR	41.0	37.4	40.4
RSC	5.8	6.5	7.2
SPECIFIC CONDUCTANCE	179.0	1580.0	1390.0

RED RIVER COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	495.86	38.05	533.91
1956	441.15	147.30	588.45
1957	359.55	144.23	503.78
1958	417.50	160.80	578.30
1959	409.08	160.80	569.88
1960	395.98	288.47	684.45
1961	388.57	398.95	787.53
1962	431.84	809.79	1,241.63
1963	573.33	779.11	1,352.44
1964	530.53	407.77	938.30
1965	614.91	407.25	1,022.16
1966	652.45	405.77	1,058.22
1967	558.57	408.40	966.97
1968	556.25	408.31	964.56
1969	779.40	407.27	1,186.67
1970	910.46	412.57	1,323.03
1971	974.54	552.53	1,527.07
1972	1,009.37	416.46	1,425.83
Total	10,499.34	6,753.83	17,253.17

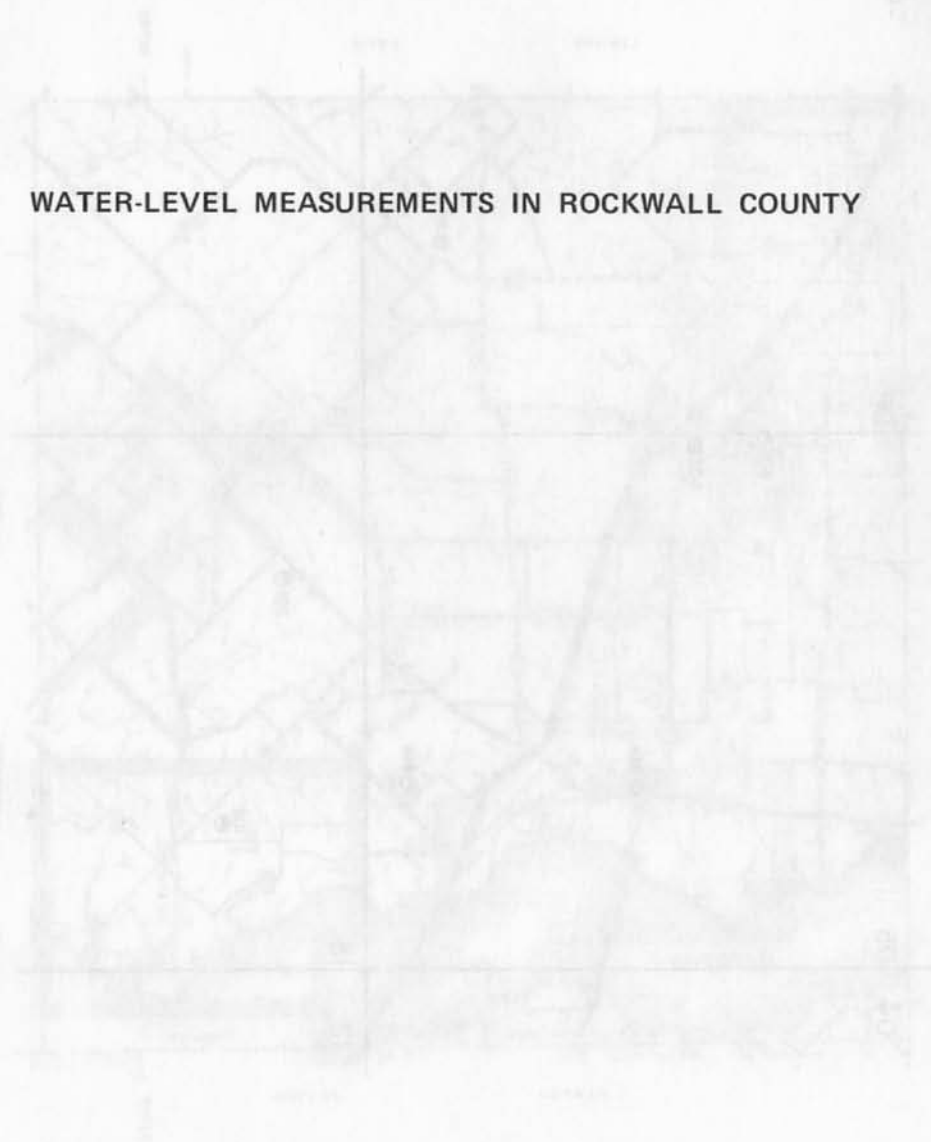
Map of Rockwall County  
Location of Observation



ROCKWALL COUNTY  
WATER LEVEL MEASUREMENTS  
OBSERVATION POINTS  
1965-1966

ROCKWALL COUNTY  
WATER LEVEL MEASUREMENTS  
OBSERVATION POINTS  
1965-1966

WATER-LEVEL MEASUREMENTS IN ROCKWALL COUNTY





ROCKWALL COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
33-05-401	KCPA	3342	596.00	01-17-71	155.00		
				03-14-71	303.04	148.04	
				11-12-71	309.89	6.85	
				11-17-72	323.05 <sup>Q</sup>	13.16	
				11-09-73	326.64 <sup>Q</sup>	3.59	
				11-12-74	331.09	4.45	
33-05-601	KGT	20	577.00	03-14-71	2.59		
				11-12-71	3.09	0.50	
				11-17-72	5.06	1.97	
				11-09-73	0.10		4.96
				11-12-74	0.24	0.14	
33-05-602	KGT	30	585.00	03-14-71	7.70		
				11-12-71	7.92	0.22	
33-05-801	KGT	50	480.00	03-14-71	4.57		
				11-12-71	6.10	1.53	
				11-17-72	2.16		3.94
				11-09-73	3.06	0.90	
				11-12-74	2.23		0.83
33-06-801	KGT	15	535.00	03-17-71	1.44		
				11-12-71	2.70	1.26	
				11-17-72	3.55	0.85	
				11-09-73	0.62		2.73
				11-12-74	0.04		0.76
33-13-102	KGT	13	498.00	03-17-71	1.73		
				11-12-71	2.46	0.73	
				11-17-72	7.20	4.74	
				11-09-73	1.72		5.48
				11-12-74	0.92		0.80
33-13-301	KGT	24	548.00	03-17-71	1.06		
				11-12-71	1.23	0.17	
				11-17-72	3.20	1.97	
				11-09-73	0.39*		2.81
				11-12-74	0.33		0.06



ROCKWALL COUNTY

GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER DATE OF COLLECTION	33-05-601 03/16/71	33-05-801 03/16/71	33-06-801 08/17/71	33-13-102 03/17/71
AQUIFER CODE	KGT	KGT	KGT	KGT
WELL DEPTH	20	50	15	13
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	23.0	10.0	11.0	27.0
CALCIUM (MG/L)	48.0	95.0	24.0	169.0
MAGNESIUM (MG/L)	5.0	8.0	2.0	19.0
SODIUM (MG/L)	72.0	91.0	11.0	70.0
POTASSIUM (MG/L)			14.0	
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	207.0	381.0	78.0	305.0
SULFATE (MG/L)	83.0	74.0	23.0	144.0
CHLORIDE (MG/L)	26.0	58.0	16.0	186.0
FLUORIDE (MG/L)	.6	.7	.7	.6
NITRATE (MG/L)	4.0	.4	.4	2.3
IRON (MG/L)				
PH	7.9		6.7	7.6
DISSOLVED SOLIDS (MG/L)	363.0	524.0	140.0	767.0
PHENOL. ALK. CaCO3	.0		.0	.0
TOTAL ALK. CaCO3	170.0		64.0	250.0
TOTAL HARD CaCO3	139.0		69.0	500.0
% SODIUM	52.74	42.30	21.76	23.35
SAR	2.6	2.4	.5	1.3
RSC	.5	.8	.0	.0
SPECIFIC CONDUCTANCE	554.0		230.0	1220.0



ROCKWALL COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	33-13-301
DATE OF COLLECTION	03/17/71
AQUIFER CODE	KGT
WELL DEPTH	24
TEMPERATURE-F	
TEMPERATURE-C	
SILICA (MG/L)	17.0
CALCIUM (MG/L)	78.0
MAGNESIUM (MG/L)	5.0
SODIUM (MG/L)	65.0
POTASSIUM (MG/L)	
MANGANESE (MG/L)	
BORON (MG/L)	
BICARBONATE (MG/L)	356.0
SULFATE (MG/L)	33.0
CHLORIDE (MG/L)	11.0
FLUORIDE (MG/L)	1.4
NITRATE (MG/L)	13.0
IRON (MG/L)	
PH	7.3
DISSOLVED SOLIDS (MG/L)	398.0
PHENOL. ALK. CaCO3	.0
TOTAL ALK. CaCO3	292.0
TOTAL HARD CaCO3	213.0
% SODIUM	39.65
SAR	1.9
RSC	1.5
SPECIFIC CONDUCTANCE	623.0

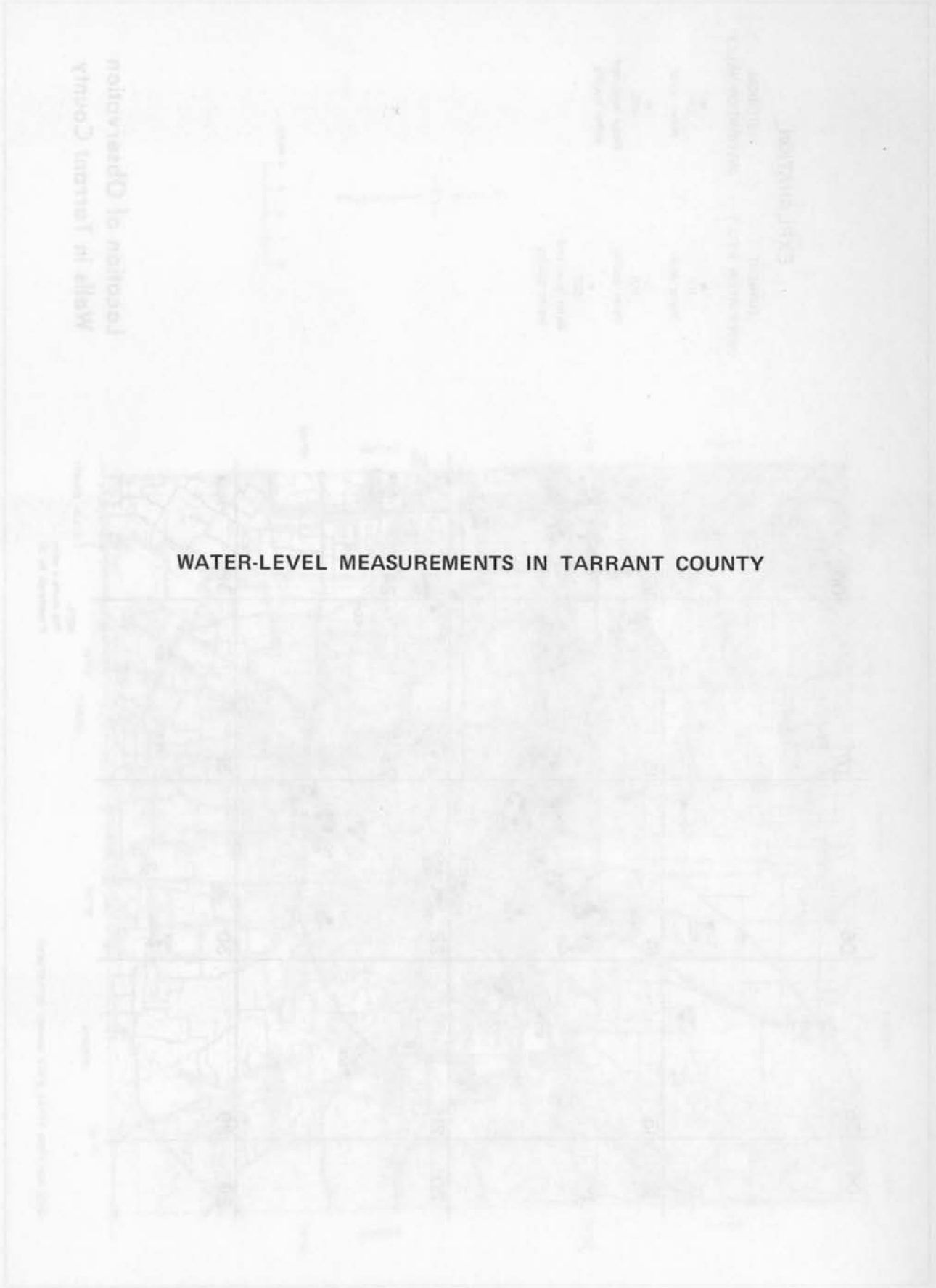
ROCKWALL COUNTY

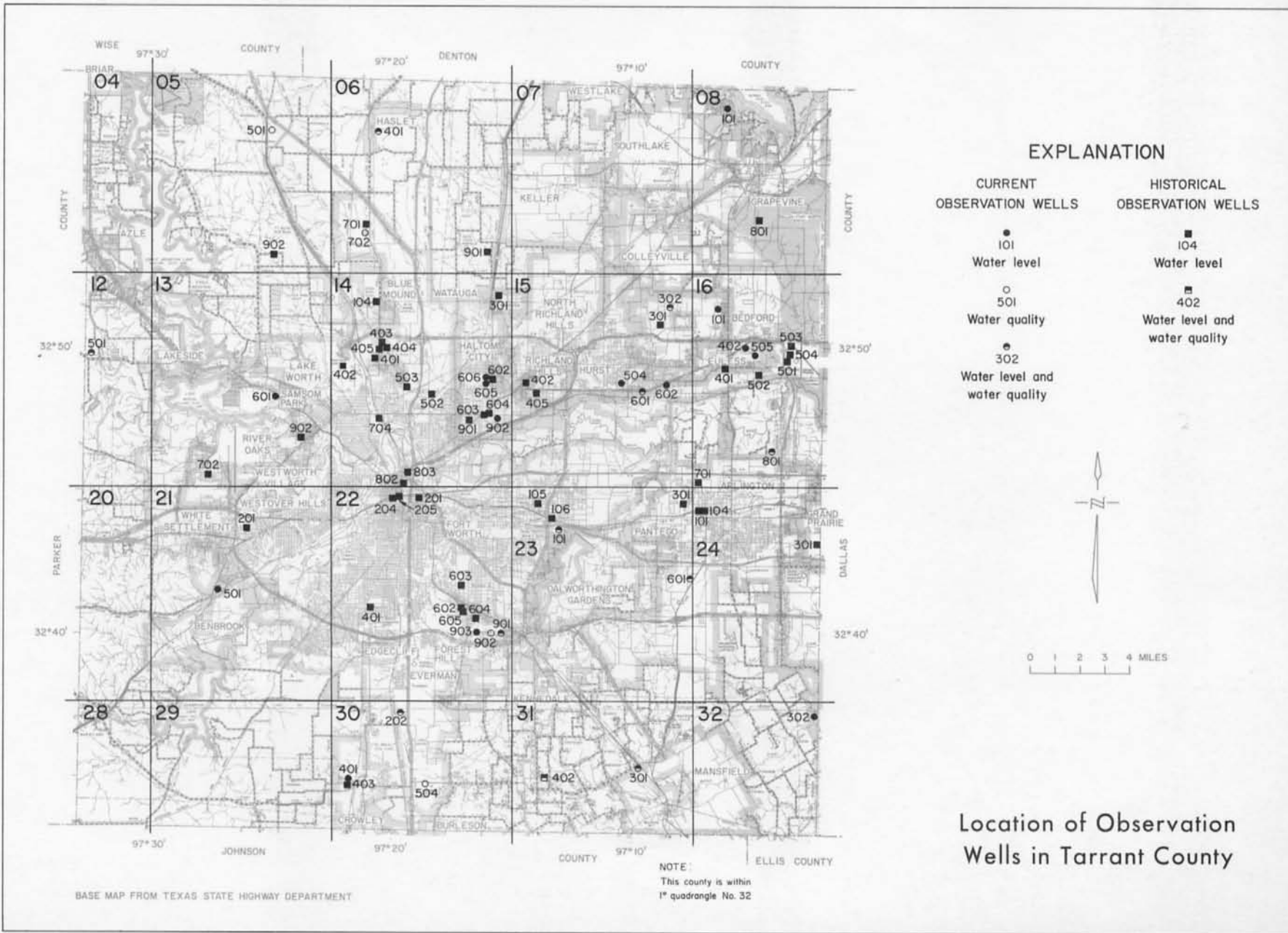
REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	143.36	.00	143.36
1956	139.66	.00	139.66
1957	59.19	.00	59.19
1958	8.40	.00	8.40
1959	3.31	.00	3.31
1960	.00	.00	.00
1961	.00	.00	.00
1962	.00	.00	.00
1963	.00	.00	.00
1964	.00	.00	.00
1965	.00	.00	.00
1966	.00	.00	.00
1967	.00	.00	.00
1968	.00	.00	.00
1969	.00	.00	.00
1970	.00	.00	.00
1971	.00	.00	.00
1972	.00	.00	.00
Total	353.92	.00	353.92

Wells in Tarrant County  
Location of Observation

WATER-LEVEL MEASUREMENTS IN TARRANT COUNTY





**EXPLANATION**

- | CURRENT<br>OBSERVATION WELLS                 | HISTORICAL<br>OBSERVATION WELLS              |
|--|--|
| ●<br>101<br>Water level                      | ■<br>104<br>Water level                      |
| ○<br>501<br>Water quality                    | ■<br>402<br>Water level and<br>water quality |
| ●<br>302<br>Water level and<br>water quality |  |



**Location of Observation  
Wells in Tarrant County**

BASE MAP FROM TEXAS STATE HIGHWAY DEPARTMENT

NOTE:  
This county is within  
1° quadrangle No. 32

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASURE- MENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-05-902	KCPA	320	840.00	03-07-54	291.10		
				06-22-54	282.92		8.18
32-06-401	KCPA	300	755.00	11-23-70	225.00	40.00	
				11-01-71	175.05		89.95
				11-12-73	290.60	115.55	
				11-14-74	291.82	1.22	
32-06-701	KCPA	----	690.00	02-03-54	226.03		
				09-15-54	231.15		5.12
32-06-901	KCPA	503	710.00	02-15-54	340.00		
				07-07-54	348.78		8.78
				09-15-54	356.30		7.52
				11-18-54	363.60		7.50
				01-20-55	361.00		2.80
				04-06-55	365.00		4.00
				02-21-56	384.00		19.00
				02-05-57	403.40		19.40
				03-14-58	412.60		9.20
				05-30-61	417.25		4.65
				05-24-62	446.82		29.57
				05-09-63	457.50		10.68
				05-03-65	469.20		11.70
				05-10-66	472.78		3.58
32-08-101	KGW	141	570.00	02-25-54	73.00		
				06-07-61	48.92		24.08
				05-09-63	46.88		2.04
				05-03-65	48.06		1.18
				05-10-66	42.90		5.16
				04-01-67	46.17		3.27
				04-25-67	50.10		3.93
				04-07-69	46.88		3.22
				05-18-70	49.24		2.36
				02-23-71	50.38		1.14
				11-01-71	52.60		2.22
				11-13-72	55.86		3.26
				11-13-73	46.83		9.03
				11-14-74	42.32		4.51
32-08-801	KCPA	788	560.00	03-08-54	236.83		
				05-17-54	238.49		1.66

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	WARRANT AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
32-12-501	KCPA	70	860.00	02-12-71	65.06			
				11-14-72	65.29	0.23		
				11-14-74	66.80	1.51		
32-13-601	KCTM	1044	760.00	05-13-55	563.70			
				01-11-56	582.20	18.50		
				06-20-56	595.60	13.40		
				09-14-56	616.20	20.60		
				02-04-57	611.20		5.00	
				07-22-57	628.20	17.00		
				03-11-58	639.80	11.60		
				05-13-63	678.59	38.79		
				05-14-64	688.80	10.21		
				05-03-65	693.78*	4.98		
				05-10-66	709.13	15.35		
				04-25-67	736.80*	27.67		
				04-01-68	746.60	9.80		
				04-07-69	747.18	0.58		
				11-10-71	764.32	17.14		
				11-17-72	764.52	0.20		
				11-07-73	761.39		3.13	
				11-06-74	763.58	2.19		
32-13-702	KCPA	160	662.00	07-10-50	90.00			
				01-03-51	89.68			0.32
				03-19-51	90.20	0.52		
				02-04-54	95.77	5.57		
				03-23-54	94.10		1.67	
				05-04-54	94.13	0.03		
				11-10-54	94.72	0.59		
				12-13-54	94.06		0.66	
				04-10-57	104.48	10.42		

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WFLP PUMPED RECENTLY OR NEARBY WFLP PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WFLP ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				03-11-58	110.02	5.54	
32-13-902	KCTM	834	608.00	01-20-48	329.00		
				11-24-50	372.00	43.00	
				03-19-54	384.97	12.97	
				05-04-54	385.44	0.47	
				06-08-54	386.53	1.09	
				07-21-54	392.04	5.51	
				08-20-54	396.12	4.08	
				09-14-54	397.82	1.70	
				10-20-54	401.30	3.48	
				11-30-54	401.41	0.11	
				01-05-55	401.27		0.14
				02-09-55	400.64		0.63
				03-23-55	399.75		0.89
				05-13-55	400.05	0.30	
				01-11-56	412.30	12.25	
				06-20-56	415.60	3.30	
				09-14-56	429.30	13.70	
				02-06-57	435.10	5.80	
				07-22-57	441.36	6.26	
				01-28-58	444.00	2.64	
32-14-104	KCTM	1135	700.00	11-14-53	530.00Q		
				12-07-53	530.00Q		
				01-04-54	530.00Q		
				02-01-54	530.00Q		
				03-08-54	525.00Q		5.00
				04-06-54	530.00Q	5.00	
				06-09-54	491.00Q		39.00
32-14-301	KCPA	500	625.00	03-00-51	247.00		
				08-16-53	260.60	13.60	
				10-09-53	286.75	26.15	
				06-03-54	283.60		3.15
				09-17-54	315.95	32.35	
				11-18-54	313.85		2.10
				12-15-54	312.30		1.55
				04-06-55	309.70		2.60
32-14-401	KCTM	1053	680.00	01-01-12	226.00		
				03-16-51	427.06	201.06	
				04-14-51	428.30	1.24	
				01-28-53	443.85	15.55	
				04-14-53	441.80		2.05
				07-01-53	452.02	10.22	



TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
				08-03-53	456.83		4.81	
				11-03-53	456.85			0.98
				11-17-53	454.50			1.35
				12-10-53	454.15			0.35
				01-19-54	452.68			1.47
				03-09-54	452.70	0.02		
				05-04-54	454.88	2.18		
				06-09-54	455.35	0.47		
				07-12-54	465.30	9.95		
				08-04-54	472.30	7.00		
				09-14-54	485.58	13.28		
				10-29-54	489.00	3.42		
				12-01-54	485.60			3.40
				01-05-55	482.10			3.50
				02-02-55	480.64			1.46
				03-10-55	477.40			3.24
				05-13-55	486.60	9.20		
				12-06-55	506.50	19.90		
				02-21-56	501.60			4.90
				06-21-56	511.50	9.90		
				09-14-56	526.50	15.00		
				02-04-57	510.90			15.60
				03-11-58	525.60	14.70		
32-14-402	KCTM	1060	626.00	11----24	260.00			
				01----52	254.00			6.00
				11----53	268.00	14.00		
				01-10-54	258.00			10.00
				03-05-54	260.90	2.90		
32-14-403	KCPA	400	680.00	10-18-50	267.76			
				10-29-50	266.08			1.68
				03-16-51	264.03			2.05
				04-04-53	275.39	11.36		
				07-01-53	277.94	2.55		
				09-04-53	278.80	0.86		
				11-17-53	278.10			0.70
				12-16-53	279.42	1.32		
				01-19-54	276.48			2.94
				03-16-54	275.79			0.69
				05-03-54	276.45	0.66		
				06-09-54	277.32	0.87		
				07-30-54	286.40	9.08		
				08-27-54	282.13			4.27
				09-14-54	286.79	4.66		
				10-19-54	283.20			3.59



TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
				12-01-54	281.02			2.18
				01-05-55	280.00			1.02
				02-02-55	278.62			1.38
				04-06-55	281.15	2.53		
				04-24-56	282.16	1.01		
				02-06-57	284.40	2.24		
				03-11-58	281.56			2.84
32-14-404	KCTM	1060	670.00	10-18-50	285.50			
				12-29-50	284.34			1.16
				04-14-53	274.70			9.64
				07-01-53	277.55	2.85		
				09-03-53	278.33	0.78		
				11-17-53	277.67			0.66
				12-16-53	278.71	1.04		
32-14-405	KCTM	1047	670.00	11-24-53	323.09			
				12-16-53	322.65			0.44
				01-19-54	316.96			5.69
				03-16-54	325.33	8.37		
				05-04-54	335.90	10.57		
				11-25-54	324.44			11.46
32-14-502	KCTM	1108	615.00	10-12-54	544.30			
				12-15-54	544.40	0.10		
				12-25-56	622.00	77.60		
				01-25-57	622.20	0.20		
				03-25-57	619.40			2.80
				05-25-57	623.60	4.20		
				08-25-57	666.70	43.10		
				09-25-57	658.00			8.70
				11-25-57	645.60			12.40
				01-25-58	639.70			5.90
				03-25-58	632.80			6.90
				05-25-58	629.10			3.70
				07-25-58	661.00	31.90		
				09-25-58	657.70			3.30
				11-25-58	641.40			16.30
				01-25-59	628.70			12.70
				03-25-59	631.70	3.00		
				05-25-59	640.96	9.26		
				07-25-59	659.12	18.16		
				10-25-59	666.98	7.86		
				11-25-59	660.31			6.67
				01-13-60	654.29			6.02
				03-16-60	647.60			6.69

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
81-2		80.180	72-01-60	05-25-60	662.57	14.97	
80-1		80.095	72-01-60	04-23-60	674.04	11.47	
80-1		80.075	72-01-60	08-18-60	691.46	17.42	
	80-5	81.085	72-01-60	10-18-60	671.80		19.66
	80-1	81.380	72-01-60	12-25-60	648.10		23.70
	72-2	80.705	72-01-60	01-25-61	645.06		3.04
80-5		80.185	72-01-60	03-25-61	644.57		0.49
				05-25-61	659.01	14.44	
				07-25-61	671.37	12.36	
81-1		80.085	72-01-60	09-25-61	686.31	14.94	
80-2		81.010	72-01-60	11-25-61	661.19		25.12
	72-5	80.110	72-01-60	01-25-62	662.80	1.61	
	81-0	80.810	72-01-60	03-25-62	646.42		16.38
80-2		79.110	72-01-60	05-25-62	680.13	33.71	
	72-1	81.010	72-01-60	07-21-62	700.87	20.74	
				09-25-62	693.47		7.40
				11-25-62	668.83		24.64
80-0		80.010	72-01-60	01-25-63	670.30	1.47	
80-2		81.010	72-01-60	03-25-63	669.38		0.92
	72-2	80.010	72-01-60	05-25-63	673.73	4.35	
	72-01	80.010	72-01-60	07-25-63	712.77	39.04	
80-11		80.010	72-01-60	09-25-63	724.11	11.34	
				11-25-63	713.74		10.37
				02-25-64	693.06		20.68
	81-0	80.010	72-01-60	03-25-64	691.37		1.69
	80-11	80.010	72-01-60	05-25-64	705.17	13.80	
	80-2	80.010	72-01-60	06-27-64	729.53	24.36	
	80-2	80.010	72-01-60	08-03-64	749.94	20.41	
	80-2	80.010	72-01-60	10-19-64	718.85		31.09
	81-11	80.010	72-01-60	12-14-64	707.19		11.66
81-2		80.010	72-01-60	03-01-65	701.63		5.56
80-11		80.010	72-01-60	04-29-65	704.96	3.33	
80-2		80.010	72-01-60	06-26-65	718.29	13.33	
80-4		80.010	72-01-60	09-01-65	762.09	43.80	
81-0		80.010	72-01-60	10-30-65	739.81		22.28
	80-11	80.010	72-01-60	12-17-65	735.05		4.76
81-4		80.010	72-01-60	02-25-66	723.11		11.94
80-11		80.010	72-01-60	03-10-66	722.54		0.57
81-11		80.010	72-01-60	04-22-66	725.39	2.85	
	80-2	80.010	72-01-60	05-18-66	725.40	0.01	
	81-7	80.010	72-01-60	06-25-66	744.63	19.23	
	81-11	80.010	72-01-60	08-18-66	773.55	28.92	
	80-7	80.010	72-01-60	10-08-66	753.10		20.45
				12-15-66	745.60		7.50
80-2		80.010	72-01-60	02-19-67	739.65		5.95
80-2		80.010	72-01-60	05-02-67	754.11	14.46	

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

u MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	ARTIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				04-24-47	778.75	24.64	
				08-17-47	801.60	22.85	
				10-19-47	782.17		19.43
				12-16-47	776.73		5.44
				02-25-48	769.63		7.10
				04-18-48	766.43		3.20
				04-07-49	764.68		1.75
32-14-503	KCTH	1000	630.00	04-10-42	356.52		
				06-17-44	396.00	39.48	
				07-29-48	462.71	66.71	
				07-22-49	470.78	8.07	
				12-29-49	442.05		28.73
				01-30-50	437.27		4.78
				02-27-50	428.80		8.47
				04-10-50	425.71		3.09
				05-25-50	368.50		57.21
				07-21-50	454.60	86.30	
				08-31-50	459.72	4.92	
				12-29-50	455.90		3.82
				03-14-51	447.48		8.42
				01-24-53	443.80		3.68
				04-14-53	437.74		6.06
32-14-602	KCPA	480	600.00	10-27-49	228.07		
				01-30-50	226.54		1.53
				02-27-50	227.26	0.72	
				04-10-50	241.98	14.72	
				05-25-50	239.24		2.74
				12-29-50	235.50		3.74
				03-14-51	246.37	10.87	
				06-02-51	245.77		0.60
				05-17-54	274.05	28.28	
32-14-603	KCPA	385	520.00	10-14-51	191.00		
				02-13-53	218.40	27.40	
				02-25-53	218.41	0.01	
				11-18-53	218.13		0.28
				11-02-54	243.65	25.52	
32-14-604	KCTH	1140	520.00	03-27-47	295.00		
				10-27-49	334.91	39.91	
				02-13-53	383.10	48.19	
				02-25-53	378.23		4.87
				11-14-53	423.05	44.82	
				01-25-54	416.96		6.09

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				08-31-54	486.15	69.19	
32-14-605	KCTM	1272	595.00	10-00-58	653.10		13.10
				07-00-59	640.00		1.00
				01-00-60	639.00		
				01-15-71	800.00	161.00	
				11-10-71	800.00		
				11-17-72	830.00	30.00	
				11-09-73	790.00		40.00
				11-12-74	788.00		2.00
32-14-606	KCPA	540	595.00	04-11-59	375.90		
				07-18-63	429.00	53.10	
				11-10-71	409.00		20.00
				11-17-72	419.00	10.00	
				11-09-73	419.00		
				11-12-74	407.00		12.00
32-14-704	KCTM	710	560.00	07-29-48	453.54	221.54	
				07-22-49	455.25	1.71	
				12-29-49	447.95		7.30
				02-27-50	447.09		0.86
				04-10-50	427.49		19.60
				05-25-50	443.30	15.81	
				02-12-54	464.70	21.40	
				02-24-54	468.25	3.55	
32-14-802	KCTM	1000	605.00	04-15-42	323.60		
				06-14-44	361.10	37.50	
				07-22-49	419.95	58.85	
				12-22-49	399.49		20.46
				07-21-50	415.61	16.12	
				12-29-50	415.40		0.21
				06-01-51	429.98	14.58	
				10-05-52	438.72	8.74	
				01-27-53	444.86	6.14	
				03-31-53	445.34	0.48	
				04-28-53	446.55	1.21	
				06-30-53	464.25	17.70	
				09-14-53	470.05	5.80	
				11-17-53	465.05		5.00
				12-10-53	464.99		0.06
				01-27-54	457.60		7.19
				02-18-54	456.64		1.16
				03-22-54	458.12	1.48	

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

W MEASUREMENT QUESTIONED DUE TO ROOF HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
32-14-803	KCTH	800	595.00	05-03-54	465.55	7.43		
				06-24-54	472.94	7.39		
				07-21-54	477.66	4.72		
				08-20-54	468.03	10.37		
				09-14-54	490.17	2.14		
				10-29-54	490.74	0.57		
				12-17-54	482.98			7.76
				02-07-55	480.67			2.31
				04-21-55	480.20			0.47
				02-21-56	490.30	10.10		
				06-20-56	503.40	13.10		
				02-07-57	524.70	21.30		
32-14-803	KCTH	800	595.00	10-12-50	405.35			
				12-29-50	405.90	0.55		
				03-14-51	408.90	3.00		
				06-02-51	408.91	0.01		
				03-31-53	436.52	27.61		
				04-27-53	438.14	1.62		
				06-30-53	451.95	13.81		
32-14-901	KCTH	1160	560.00	05-13-50	460.00			
				09-12-54	551.00	71.00		
				11-01-54	536.30			14.70
				12-09-54	518.60			17.70
				01-07-55	509.80			8.80
				03-23-55	505.70			4.10
32-14-902	KCFA	441	510.00	01-22-55	232.00			
				07-23-57	284.00	52.00		
				10-29-58	320.00	36.00		
				02-13-70	340.00	20.00		
				11-10-71	352.00	12.00		
				11-17-72	347.00			5.00
				11-09-73	362.00	15.00		
				11-12-74	339.00			23.00
32-14-301	KCTH	1657	610.00	09-17-54	479.50			
				11-10-71	786.00	306.50		
32-14-302	KGH	50	620.00	11-18-70	33.83			
				11-01-71	35.18	1.35		
				11-13-72	34.75			0.43
				11-13-73	37.30	2.55		
				11-14-74	34.63			2.67

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-15-402	KCPA	495	550.00	11-01-54	288.24		
				12-27-54	286.50		1.74
				01-21-55	284.70		1.80
				02-15-55	282.95		1.75
				04-06-55	286.30	3.35	
				05-13-55	306.10	19.80	
				01-03-56	321.60	15.50	
				06-08-56	345.95	24.35	
				02-07-57	346.50	0.55	
				03-14-58	355.05	8.55	
				05-24-62	397.84	42.79	
				05-13-63	395.74		2.10
				05-13-64	396.54	0.80	
				05-03-65	405.28Q	8.74	
				32-15-405	KCPA	490	546.23
01-11-50	197.98	10.98					
06-04-51	194.95		3.03				
07-01-53	250.58	55.63					
09-21-53	245.13		5.45				
11-18-53	244.67		0.46				
12-16-53	238.29		6.38				
01-19-54	235.19		3.10				
02-24-54	231.93		3.26				
03-16-54	237.80	5.87					
05-06-54	248.10	10.30					
06-09-54	259.98	11.88					
07-12-54	291.85	31.87					
08-17-54	309.60	17.75					
09-14-54	316.95	7.35					
10-18-54	303.35		13.60				
11-15-54	291.50		11.85				
12-27-54	291.58	0.08					
01-21-55	290.52		1.06				
02-15-55	287.39		3.13				
04-06-55	288.90						
05-13-55	311.75	22.85					
32-15-504	KCPA	656	535.00	05-23-73	484.54		
				07-14-73	485.15	0.61	
				09-18-73	488.12	2.97	
				11-07-73	486.15		1.97
				02-05-74	481.11		5.04
				05-13-74	479.76		1.35
				08-14-74	485.52	5.76	
11-06-74	483.56		1.96				



TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASURE- MENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-15-601	KCTM	1483	522.00	11-04-51	293.00		
				03-03-52	292.50		0.50
				01-29-53	288.50		4.00
				02-03-53	278.50		10.00
				03-02-53	316.50	38.00	
				04-04-53	323.50	7.00	
				05-04-53	313.50		10.00
				06-01-53	320.50	7.00	
				07-03-53	341.70	21.20	
				08-03-53	354.50	12.80	
				09-08-53	335.50		19.00
				10-05-53	363.50	28.00	
				11-07-53	366.50	3.00	
				12-07-53	357.50		9.00
				01-04-54	359.50	2.00	
				02-01-54	359.50		
				03-01-54	363.50	4.00	
				04-05-54	363.50		
				05-02-54	369.50	6.00	
				06-01-54	374.50	5.00	
				07-07-54	373.50		1.00
				08-02-54	408.50	35.00	
				09-07-54	408.50		
				10-04-54	408.50		
				11-01-54	413.50	5.00	
				12-04-54	404.50		9.00
01-03-55	402.50		2.00				
02-07-55	399.50		3.00				
03-01-55	396.50		3.00				
04-04-55	397.50	1.00					
05-02-55	394.50		3.00				
06-04-55	398.50	4.00					
07-05-55	399.50	1.00					
08-08-55	420.50	21.00					
09-06-55	428.50	8.00					
02-13-56	326.70*		101.80				
12-04-69	735.00	408.30					
06-21-71	785.00	50.00					
08-25-72	920.00*	135.00					
08-25-72	815.00		105.00				
05-22-73	780.00		35.00				
06-15-73	720.00		60.00				
06-24-74	810.00	90.00					
32-15-602	KGM	50	563.00	11-19-70	39.76		
				11-13-72	38.75		1.01

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WFL PUMPFD RECENTLY OR NFARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				11-13-73	38.55		0.20
				11-14-74	38.30		0.25
32-16-101	KCTM	1800	610.00	---04-70	762.00		
				06-12-73	888.00	126.00	
				01-14-74	910.00	22.00	
32-16-401	KCPA	900	541.00	12-10-53	246.87		
				02-04-54	246.88	0.01	
				03-14-54	248.10	1.22	
				05-04-54	249.47	1.37	
				06-09-54	252.29	2.82	
				07-20-54	263.60	11.31	
				08-17-54	266.48	2.88	
				09-24-54	282.64	16.16	
				10-15-54	285.60	2.96	
				11-23-54	289.10	3.50	
				01-04-55	290.98	1.88	
				02-15-55	292.53	1.55	
				04-21-55	295.30	2.77	
				01-04-56	341.70	46.40	
				06-04-56	353.05	11.35	
				03-14-58	400.00	46.95	
				05-31-61	434.10	34.10	
				05-03-65	497.14	63.04	
32-16-402	KCPA	850	610.00	-----65	467.00		
32-16-501	KCTM	1755	495.00	03-19-57	463.10		
				07-23-57	483.30	20.20	
				03-07-58	477.10		6.20
32-16-502	KCPA	863	490.00	01-11-51	63.45		
				09-21-53	76.62	13.17	
				11-18-53	76.48		0.14
				12-14-53	76.82	0.34	
				01-19-54	76.82		
				02-23-54	76.51		0.31
				03-14-54	76.66	0.15	
				05-04-54	77.24	0.58	
				06-09-54	77.38	0.14	
				07-30-54	82.86	5.48	
				08-17-54	86.03	3.17	
				09-15-54	89.66	3.63	
				10-15-54	88.20		1.46
				01-04-55	87.69		0.51



TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

0 MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
32-16-503	KGW	267	560.00	03-04-55	86.54			1.15
				04-27-51	100.94			
				06-04-51	99.56			1.38
				09-08-51	102.33	2.77		
				10-10-51	102.51	0.18		
				11-24-51	102.57	0.06		
				10-31-52	108.06	5.49		
32-16-504	KCTM	1846	538.00	04-27-51	241.39			
				06-04-51	242.75	1.36		
				01-27-53	310.39	67.64		
				07-03-53	344.95	34.56		
				09-07-53	364.12	19.17		
				10-24-53	371.20	7.08		
				12-14-53	362.84			8.36
				01-18-54	363.02	0.18		
				02-08-54	363.05	0.03		
				03-11-54	380.37	17.32		
				04-24-54	381.65	1.28		
				05-12-54	379.70			1.95
				06-02-54	383.55	3.85		
				07-30-54	415.40	31.85		
				08-17-54	421.30	5.90		
				09-15-54	430.28	8.98		
				10-15-54	441.50	11.22		
				11-15-54	420.80			20.70
				12-14-54	414.21			6.59
				01-17-55	410.45			3.76
				02-15-55	405.30			5.15
				03-21-55	408.50	3.20		
				04-21-55	407.75			0.75
				05-13-55	415.00	7.25		
				09-08-55	446.30	31.30		
				01-03-56	442.10			4.20
				02-10-56	438.90			3.20
				06-25-56	466.70	27.80		
				03-28-57	516.00	49.30		
				09-24-57	534.50	18.50		
32-16-505	KCPA	900	580.00	08-18-71	525.00			
				07-11-72	706.00*	137.00		
				01-14-74	643.00	44.00		63.00
32-16-701	KCPA	720	576.00	12-14-53	307.80			

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
32-16-801	KGW	217	570.00	02-15-54	305.58			2.22
				03-31-54	305.71	0.13		
				05-06-54	312.17	6.46		
				08-02-54	339.97	27.80		
				09-07-54	350.40	10.43		
				10-15-54	359.10	8.70		
				11-23-54	356.89			2.21
				12-23-54	357.40	0.51		
32-21-201	KCTM	1030	735.00	11-20-70	144.92			
				11-01-71	146.24	1.32		
				11-13-72	147.28	1.04		
				11-13-73	147.17			0.11
				11-14-74	147.44	0.27		
32-21-501	KCPA	227	640.00	02-12-45	85.00			
				11-08-50	97.48	12.48		
				03-16-51	97.67	0.19		
				06-01-51	98.72	1.05		
				12-09-53	100.95	2.23		
				01-20-54	99.74			1.21
				02-17-54	99.89	0.15		
				03-19-54	99.97	0.08		
				05-04-54	100.09	0.12		
				06-01-54	100.45	0.36		
				07-15-54	102.68	2.23		
				08-20-54	103.68	1.00		
				09-14-54	103.20			0.48
				11-02-54	102.21			0.99
				12-01-54	101.51			0.70
				01-05-55	101.01			0.50
				02-09-55	100.64			0.37
				03-24-55	100.34			0.30
				05-02-55	101.42	1.08		
				01-11-56	102.88	1.46		
				09-14-56	106.88	4.00		
				02-06-57	103.96			2.92
				07-22-57	106.68	2.72		
				03-11-58	104.79			1.89
				05-30-61	110.55	5.76		
				05-24-62	110.68	0.13		
				05-13-63	110.32			0.36

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

o MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				05-14-64	110.45	0.13	
				05-03-65	110.93	0.48	
				05-10-66	111.91	0.98	
				04-25-67	112.77	0.86	
				04-01-68	113.63	0.86	
				04-07-69	113.13		0.50
				05-18-70	131.50	18.37	
				02-23-71	134.25	2.75	
				11-02-71	124.55		9.70
				11-13-72	136.62	12.07	
				11-13-73	136.35		0.27
				11-14-74	139.84	3.49	
32-22-201	KCTM	1100	588.00	10-05-54	291.95		
				11-05-54	291.40		0.55
				08-05-55	297.14	5.74	
				02-07-57	298.70	1.56	
				03-14-58	298.85	0.15	
				05-31-61	306.51	7.66	
				05-24-62	307.77	1.26	
32-22-204	KCTM	1080	609.00	-----37	319.20		
				-----47	411.20	92.00	
				01-25-52	515.20	104.00	
				04-28-54	519.90	4.70	
				05-26-54	519.50		0.40
32-22-205	KCTM	1095	611.00	-----32	240.00		
				-----34	260.00	20.00	
				09-15-49	489.31	229.31	
				01-12-53	507.00	17.69	
				09-04-53	544.10	37.10	
				11-17-53	535.00		9.10
				12-15-53	530.25		4.75
				01-16-54	526.32		3.93
				03-15-54	527.97	1.65	
				04-28-54	535.10	7.13	
				05-26-54	534.09		1.01
				06-24-54	545.39	11.30	
				07-21-54	557.10	11.71	
				08-20-54	565.70	8.60	
				09-16-54	544.43		21.27
				10-29-54	565.90	21.47	
				12-10-54	553.80		12.10
				02-02-55	548.40		5.40

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
32-22-401	KCTH	1083	700.00	10-13-50	473.78		
				12-29-50	476.30	2.52	
				03-14-51	479.87	3.57	
				04-14-51	482.12	2.25	
				06-02-51	484.75	2.63	
				10-10-52	498.00	13.25	
				01-28-53	528.65	30.65	
				04-28-53	528.57		0.08
				07-03-53	526.10		2.47
				09-14-53	535.12	9.02	
				11-20-53	539.69	4.57	
				12-15-53	540.12	0.43	
				02-19-54	538.28		1.84
				03-22-54	538.22		0.06
				04-28-54	539.30	1.08	
				06-04-54	541.10	1.80	
				07-13-54	543.50	2.40	
				08-20-54	548.30	4.80	
				09-27-54	553.20	4.90	
				10-21-54	555.40	2.20	
				11-30-54	557.30	1.90	
				12-30-54	557.20		0.10
				02-01-55	556.50		0.70
				03-01-55	556.40		0.10
				05-02-55	556.50	0.10	
				01-03-56	571.50	15.00	
				02-17-56	571.80	0.30	
				06-21-56	577.00	5.20	
				02-04-57	601.70	24.70	
				07-22-57	605.30	3.60	
				03-11-58	622.10	16.80	
32-22-602	KCTH	1288	675.00	06-23-48	336.00		
				06-29-48	347.53	11.53	
				10-27-49	381.01	33.48	
				01-30-50	382.89	1.88	
				02-27-50	381.92		0.97
				03-23-51	412.00	30.08	
				04-12-51	410.98		1.02
				07-01-54	509.70	98.72	
				11-01-54	527.80	18.10	
32-22-603	KCPA	550	710.00	02-15-40	351.00		
				07-31-47	410.00	59.00	
				10-27-49	438.07	28.07	
				01-30-50	440.02	1.95	

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

MEASUREMENT QUESTIONED DUE TO BOREHOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
				07-27-50	444.24		
				04-10-50	460.82*	16.58	
32-22-604	KCPA	690	700.00	10-27-49	378.37		
				01-30-50	377.70		0.67
				02-27-50	378.27	0.57	
				04-10-50	377.79		0.48
				05-25-50	372.55		5.24
				07-21-50	373.64	1.09	
				12-29-50	377.41	3.77	
				03-21-51	375.90		1.51
32-22-605	KCPA	504	653.00	01-24-53	320.88		
				02-20-53	320.70		0.18
				03-20-53	320.40		0.30
				04-28-53	321.15	0.75	
32-22-901	KCTH	1352	660.00	07-24-62	604.00		
				11-10-71	606.00	2.00	
				11-07-73	681.00*	75.00	
				11-06-74	715.00*	34.00	
32-22-903	KCTH	1346	655.00	06-27-64	630.00		
				11-10-71	713.00	83.00	
				11-17-72	781.00	68.00	
				11-07-73	838.00	57.00	
				11-06-74	804.00*		34.00
32-23-101	KCTH	1363	541.46	12-11-47	293.00		
				06-22-71	755.00	462.00	
				11-10-71	826.00*	71.00	
				11-17-72	780.00		46.00
				11-07-73	775.00		5.00
				11-06-74	764.00		11.00
32-23-105	KCPA	700	650.00	08-03-54	365.05		
				09-15-54	374.80	9.75	
				10-22-54	371.50		3.30
				11-24-54	360.00		11.50
				01-07-55	360.90	0.90	
32-23-106	KCTH	1376	590.00	07-28-48	402.38		
				09-01-49	411.97	9.59	
				01-19-50	403.66		8.31
				04-10-50	388.56		15.10
				05-25-50	402.10	13.54	

TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WFL PUMPED RECENTLY OR NEARBY WELL ENTRY PUMPING

Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	WELL NAME	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
							DECLINE	RISE
32-21-301	KCPA		793	638.00	07-21-50	424.40	22.30	
					12-29-50	422.10		2.30
					06-02-51	433.27	11.17	
					02-04-53	471.48	38.21	
					03-20-53	473.95	2.47	
					04-28-53	479.85	5.90	
					07-04-53	496.00	16.15	
					06-00-54	523.00	27.00	
32-23-601	KGW		135	650.00	11-19-70	113.68		
					11-01-71	112.60		1.08
					11-13-72	107.70		4.90
					11-13-73	112.55	4.85	
					11-14-74	112.80	0.25	
32-24-101	KCTH		1775	639.00	08-04-53	520.50		
					09-09-53	510.50		10.00
					11-30-53	519.20	8.70	
					02-02-54	514.20		5.00
					03-17-54	522.74	8.54	
					05-04-54	531.44	8.70	
					04-28-55	565.00	33.56	
					03-06-56	598.20	33.20	
					04-15-57	669.00	70.80	
32-24-104	KCPA		900	635.00	11-23-53	376.70		
					12-14-53	375.57		1.13
					02-01-54	378.55	2.98	
					03-17-54	380.05	1.50	
					08-02-54	424.30	44.25	
					10-01-54	437.00	12.70	
					12-01-54	438.60	1.60	
					02-15-55	427.30		11.30
					04-27-55	447.00	19.70	
					03-10-56	494.20	47.20	
32-24-301	KCPA		1060	565.00	10-28-53	318.40		
					12-14-53	318.53	0.13	
					02-02-54	320.07	1.54	
					03-17-54	319.25		0.82
					04-29-54	327.74	8.49	
					06-21-54	369.75	42.01	
					07-20-54	414.30	44.55	



TARRANT COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASURE- MENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	DECLINE	RISE
				08-19-54	405.80			8.50
				12-02-54	415.70	9.90		
				02-14-55	413.30			2.40
				05-23-55	424.70	11.40		
				04-11-56	458.10	33.40		
32-30-202	KCPA	500	730.00	11-25-70	443.50			
				11-02-71	451.08	7.58		
				11-17-72	456.86	5.78		
				11-06-74	455.77			1.09
32-30-401	KCPA	500	785.00	06-28-56	387.72			
				02-04-57	390.90	3.18		
				07-27-57	396.40	5.50		
				03-11-58	395.80			0.60
				05-30-61	417.78	21.98		
				05-24-62	432.97	15.19		
				05-13-63	439.05	6.08		
				05-14-64	445.30	6.25		
				05-03-65	452.40	7.10		
				05-10-66	442.45			9.95
				04-25-67	445.40	2.95		
				04-01-68	451.16	5.76		
				04-07-69	452.62	1.46		
				05-18-70	451.24			1.38
				02-23-71	452.88	1.64		
				11-02-71	452.10			0.78
				11-17-72	451.59			0.51
				11-07-73	451.72	0.13		
				11-06-74	450.75			0.97
32-30-403	KCPA	500	790.00	12-08-53	358.85			
				01-20-54	358.90	0.05		
				02-18-54	359.25	0.35		
				03-22-54	360.72	1.47		
				05-04-54	360.82	0.10		
				06-21-54	364.17	3.35		
				08-02-54	368.70	4.53		
				09-27-54	374.30	5.60		
				11-17-54	371.55			2.75
				01-05-55	371.00			0.55
				05-02-55	371.03	0.03		
32-31-301	KGW	171	680.00	11-19-70	92.92			
				11-01-71	94.50	1.58		
				11-13-72	95.30	0.80		





## TARRANT COUNTY

## GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	32-05-501	32-06-401	32-06-702	32-12-501
DATE OF COLLECTION	11/23/70	11/23/70	11/23/70	02/12/71
AQUIFER CODE	KCPA	KCPA	KCPA	KCPA
WELL DEPTH	317	300	800	70
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	10.0	11.0	11.0	20.0
CALCIUM (MG/L)	2.0	1.0	2.0	82.0
MAGNESIUM (MG/L)	1.0	1.0	1.0	11.0
SODIUM (MG/L)	176.0	192.0	212.0	20.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	345.0	394.0	466.0	321.0
SULFATE (MG/L)	55.0	33.0	36.0	19.0
CHLORIDE (MG/L)	11.0	9.0	16.0	5.0
FLUORIDE (MG/L)	.3	.3	1.2	.1
NITRATE (MG/L)	1.5	1.5	2.0	.4
IRON (MG/L)				
PH	8.9	9.1	8.9	7.7
DISSOLVED SOLIDS (MG/L)	426.0	442.0	510.0	315.0
PHENOL. ALK. CaCO3	15.0	26.0	19.0	.0
TOTAL ALK. CaCO3	313.0	375.0	420.0	263.0
TOTAL HARD CaCO3	8.0	7.0	9.0	249.0
% SODIUM	97.67	98.44	98.06	14.83
SAR	25.3	32.4	30.5	.5
RSC	5.4	6.3	7.4	.2
SPECIFIC CONDUCTANCE	701.0	749.0	869.0	500.0

## TARRANT COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-15-302	32-15-601	32-16-801	32-22-901
DATE OF COLLECTION	11/18/70	06/22/71	11/20/70	06/23/71
AQUIFER CODE	KGW	KCTM	KGW	KCTM
WELL DEPTH	50	1483	217	1352
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	16.0	13.0	11.0	13.0
CALCIUM (MG/L)	52.0	4.0	16.0	2.0
MAGNESIUM (MG/L)	17.0	2.0	8.0	2.0
SODIUM (MG/L)	82.0	375.0	205.0	286.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	124.0	550.0	339.0	510.0
SULFATE (MG/L)	42.0	256.0	179.0	114.0
CHLORIDE (MG/L)	151.0	83.0	35.0	59.0
FLUORIDE (MG/L)	.3	2.9	.8	2.4
NITRATE (MG/L)	27.0	.4	4.5	.4
IRON (MG/L)				
PH	6.7	8.1	7.7	8.6
DISSOLVED SOLIDS (MG/L)	448.0	1006.0	625.0	729.0
PHENOL. ALK. CAC03	.0	.0	.0	10.0
TOTAL ALK. CAC03	102.0	450.0	278.0	434.0
TOTAL HARD CAC03	202.0	18.0	73.0	12.0
% SODIUM	47.18	97.81	85.96	97.92
SAR	2.5	38.2	10.4	34.2
RSC	.0	8.6	4.0	8.0
SPECIFIC CONDUCTANCE	792.0	1520.0	937.0	1137.0

## TARRANT COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-22-902	32-23-101	32-23-101	32-23-601
DATE OF COLLECTION	06/23/71	08/20/48	06/22/71	11/19/70
AQUIFER CODE	KCPA	KCTM	KCTM	KGW
WELL DEPTH	570	1363	1363	135
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	12.0	14.0	13.0	14.0
CALCIUM (MG/L)	2.0	2.0	4.0	194.0
MAGNESIUM (MG/L)	1.0	1.0	2.0	17.0
SODIUM (MG/L)	210.0	284.0	289.0	105.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	462.0	540.0	550.0	378.0
SULFATE (MG/L)	58.0	73.0	115.0	256.0
CHLORIDE (MG/L)	13.0	77.0	49.0	154.0
FLUORIDE (MG/L)	.8	.0	2.5	.9
NITRATE (MG/L)	.4	.2	.4	.4
IRON (MG/L)				
PH	8.3		7.8	7.7
DISSOLVED SOLIDS (MG/L)	524.0	716.7	745.0	927.0
PHENOL. ALK. CAC03	.0		.0	.0
TOTAL ALK. CAC03	379.0		454.0	310.0
TOTAL HARD CAC03	9.0	9.0	18.0	550.0
% SODIUM	98.04	98.54	97.18	29.19
SAR	30.2	40.9	29.4	1.9
RSC	7.3	8.6	8.6	.0
SPECIFIC CONDUCTANCE	806.0	1230.0	1144.0	1360.0

## TARRANT COUNTY

## GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	32-30-202	32-30-504	32-31-301	32-31-402
DATE OF COLLECTION	11/25/70	11/19/70	11/19/70	06/28/71
AQUIFER CODE	KCPA	KCPA	KGW	KCPA
WELL DEPTH	500	640	171	734
TEMPERATURE-F				
TEMPERATURE-C				
SILICA (MG/L)	11.0	11.0	13.0	12.0
CALCIUM (MG/L)	2.0	3.0	25.0	2.0
MAGNESIUM (MG/L)	1.0	1.0	5.0	1.0
SODIUM (MG/L)	183.0	193.0	32.0	225.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	384.0	434.0	153.0	488.0
SULFATE (MG/L)	25.0	37.0	9.0	70.0
CHLORIDE (MG/L)	9.0	10.0	13.0	14.0
FLUORIDE (MG/L)	.5	.7	.5	1.1
NITRATE (MG/L)	.4	.4	.4	1.0
IRON (MG/L)				
PH	9.1	8.7	7.4	8.5
DISSOLVED SOLIDS (MG/L)	420.0	469.0	173.0	566.0
PHENOL, ALK. CaCO3	23.0	10.0	.0	6.0
TOTAL ALK. CaCO3	361.0	376.0	125.0	412.0
TOTAL HARD CaCO3	10.0	9.0	84.0	11.0
% SODIUM	97.76	97.31	45.62	98.17
SAR	26.3	24.6	1.5	32.4
RSC	6.1	6.8	.8	7.8
SPECIFIC CONDUCTANCE	716.0	755.0	289.0	900.0

TARRANT COUNTY

SUMMARY OF GROUND WATER QUALITY  
AQUIFER KCPA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	0.00	20.00	11.80	12.00	60.00	20
CALCIUM (CA)	1.00	82.00	6.47	2.00	9.52	21
MAGNESIUM (MG)	0.00	11.00	2.00	1.00	14.28	21
SODIUM (NA)	20.00	335.00	209.09	207.00	45.45	22
BICARBONATE (HCO3)	321.00	498.00	438.81	452.00	63.63	22
SULFATE (SO4)	19.00	158.00	69.95	58.00	40.90	22
CHLORIDE (CL)	5.00	125.00	18.72	13.00	22.72	22
FLUORIDE (F)	0.00	2.00	0.74	0.70	45.45	22
NITRATE (NO3)	0.00	3.50	1.04	0.40	40.90	22
TOTAL DISSOLVED SOLIDS (TDS)	315.00	847.41	534.47	512.44	36.36	22
HARDNESS (CAC03)	2.00	249.00	23.22	8.00	13.63	22
SPECIFIC CONDUCTANCE	500.00	1160.00	836.76	806.00	41.17	17
PH	7.70	9.10	8.60	8.70	54.54	22
PERCENT SODIUM	14.83	99.54	92.83	98.06	85.71	21
SAR	0.55	68.87	31.80	32.49	52.38	21
RSC	0.26	7.94	6.67	7.21	71.42	21

TARRANT COUNTY

SUMMARY OF GROUND WATER QUALITY--Continued

AQUIFER KCTM

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	10.00	20.00	13.50	13.00	37.50	16
CALCIUM (CA)	2.00	6.00	2.81	2.00	37.50	16
MAGNESIUM (MG)	1.00	5.00	1.87	2.00	56.25	16
SODIUM (NA)	284.00	427.00	339.68	323.00	43.75	16
BICARBONATE (HCO3)	510.00	617.00	551.93	540.00	25.00	16
SULFATE (SO4)	73.00	256.00	156.56	138.00	37.50	16
CHLORIDE (CL)	44.00	227.00	94.37	85.00	31.25	16
FLUORIDE (F)	0.00	7.00	1.70	1.80	50.00	16
NITRATE (NO3)	0.00	2.50	0.68	0.20	31.25	16
TOTAL DISSOLVED SOLIDS (TDS)	716.71	1133.48	883.69	830.20	43.75	16
HARDNESS (CAC03)	7.00	30.00	14.18	11.00	31.25	16
SPECIFIC CON- DUCTANCE	1137.00	1950.00	1437.76	1380.00	46.15	13
PH	7.80	8.80	8.29	8.30	46.15	13
PERCENT SODIUM	96.01	98.99	97.89	97.97	56.25	16
SAR	26.60	59.27	40.82	39.32	43.75	16
RSC	8.07	9.79	8.74	8.65	25.00	16

TARRANT COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	11,764.82	4,188.43	15,953.25
1956	11,753.61	4,188.51	15,942.12
1957	12,839.89	4,188.51	17,028.40
1958	10,868.20	4,235.84	15,104.04
1959	10,489.31	2,440.89	12,930.20
1960	9,586.90	3,330.64	12,917.54
1961	11,647.42	3,318.30	14,965.72
1962	12,785.68	3,556.10	16,341.78
1963	15,507.46	3,691.37	19,198.83
1964	15,911.17	3,862.07	19,773.24
1965	16,100.01	3,540.59	19,640.60
1966	14,052.25	3,598.27	17,650.52
1967	15,560.56	3,764.12	19,324.68
1968	16,961.87	3,762.67	20,724.54
1969	19,865.58	3,705.29	23,570.87
1970	15,340.90	3,427.78	18,768.68
1971	12,523.49	1,514.22	14,037.71
1972	20,207.93	1,902.87	22,110.80
Total	253,767.05	62,216.47	315,983.52



TARRANT COUNTY

SUMMARY OF GROUND WATER QUALITY--Continued

AQUIFER KGW

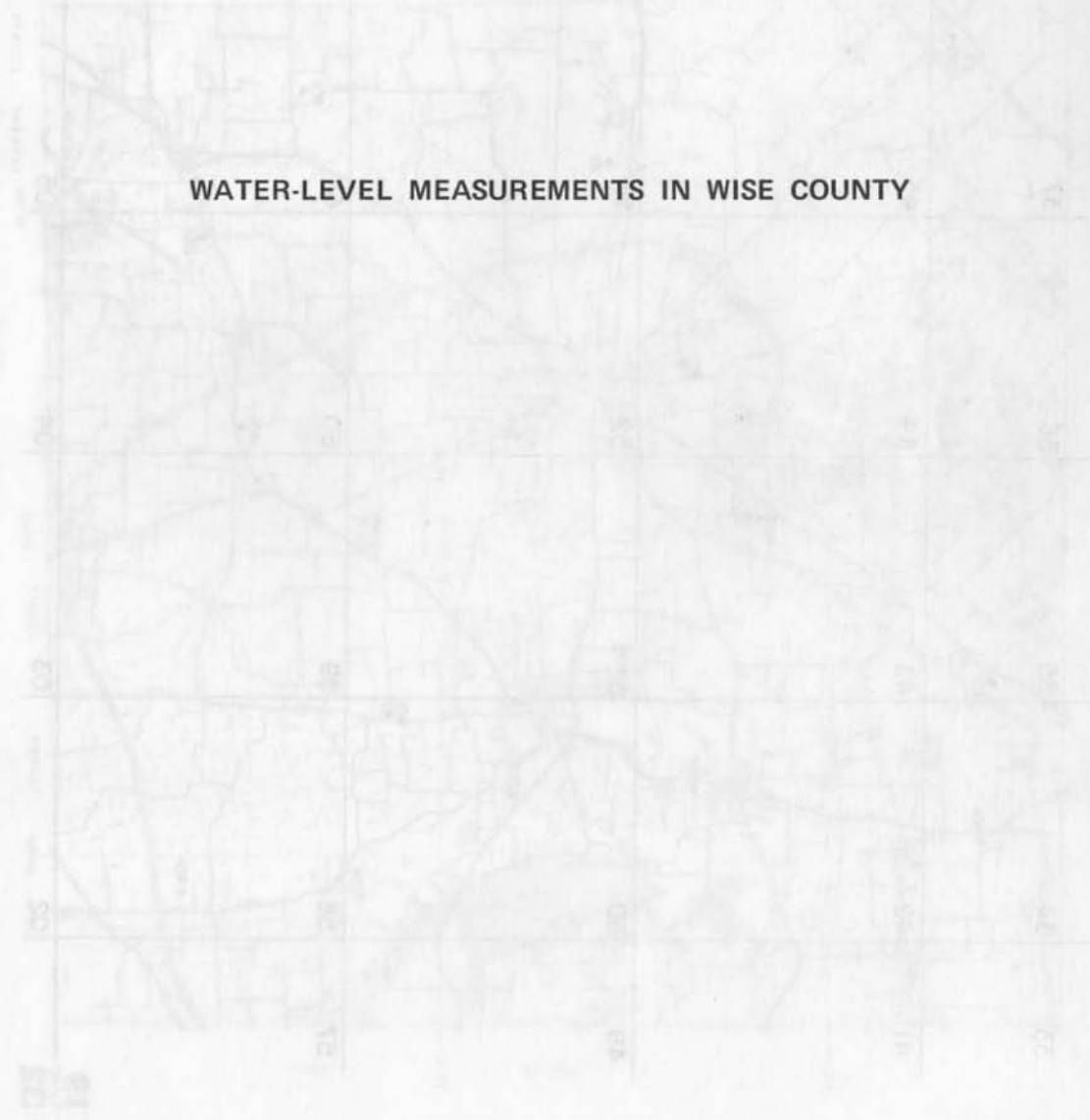
CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	11.00	23.00	15.40	14.00	40.00	5
CALCIUM (CA)	16.00	194.00	83.40	52.00	40.00	5
MAGNESIUM (MG)	5.00	21.00	13.60	17.00	60.00	5
SODIUM (NA)	32.00	205.00	102.80	90.00	40.00	5
BICARBONATE (HCO3)	124.00	378.00	271.40	339.00	60.00	5
SULFATE (SO4)	9.00	256.00	133.00	179.00	60.00	5
CHLORIDE (CL)	13.00	154.00	87.60	85.00	40.00	5
FLUORIDE (F)	0.30	0.90	0.66	0.80	60.00	5
NITRATE (NO3)	0.00	27.00	6.46	0.40	20.00	5
TOTAL DISSOLVED SOLIDS (TDS)	173.00	927.00	576.05	625.00	60.00	5
HARDNESS (CAC03)	73.00	550.00	264.00	202.00	40.00	5
SPECIFIC CONDUCTANCE	289.00	1360.00	895.60	937.00	60.00	5
PH	6.70	7.70	7.40	7.50	60.00	5
PERCENT SODIUM	29.19	85.96	48.04	45.62	20.00	5
SAR	1.52	10.45	3.67	1.94	20.00	5
RSC	0.00	4.09	0.98	0.00	20.00	5



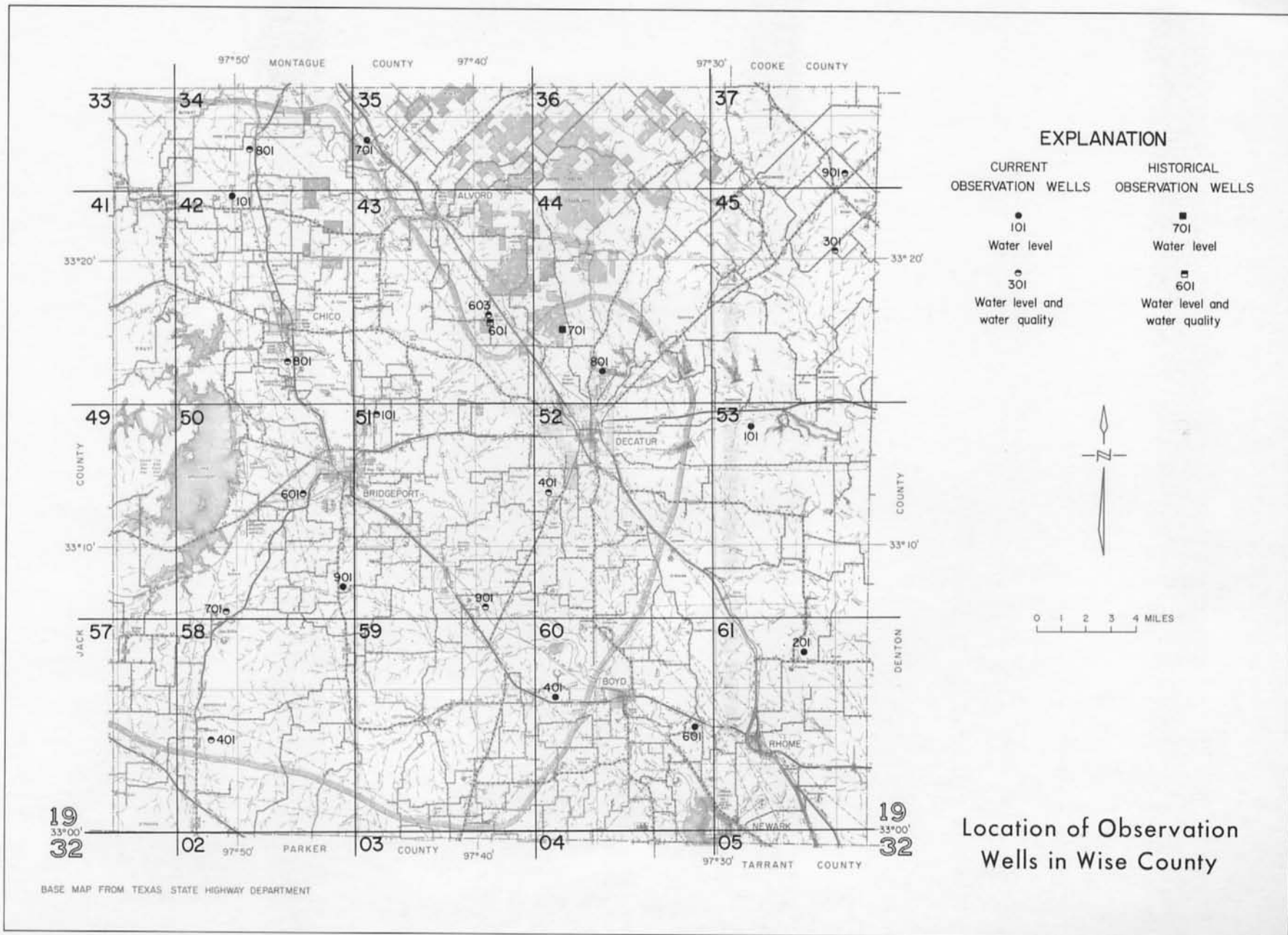
Wells in Wise County  
Location of Observation

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18

WATER-LEVEL MEASUREMENTS IN WISE COUNTY



WATER LEVEL MEASUREMENT LOCATIONS  
WELL NO. 1  
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WELL NO. 99  
WELL NO. 100



WISE COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 Q MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
19-44-801	KCA	148	950.00	10-19-70	46.55		
				02-24-71	47.04	0.49	
				11-17-72	47.62	0.58	
				11-10-73	44.84		2.78
				11-13-74	42.70		2.14
19-45-301	KCA	370	910.00	10-20-70	204.23		
				02-24-71	203.60		0.63
				11-05-71	204.80	1.20	
				11-17-72	208.61*	3.81	
				11-10-73	206.92		1.69
19-50-601	QAL	70	750.00	08-02-69	25.00		
				10-20-70	25.10	0.10	
				02-24-71	26.22	1.12	
				11-05-71	27.39	1.17	
				11-16-72	29.49	2.10	
19-50-701	KCTM	50	935.00	10-20-70	9.27		
				02-24-71	9.00		0.27
				11-05-71	22.12	13.12	
				11-16-72	23.30	1.18	
				11-12-73	23.27		0.03
19-50-901	KCTM	78	930.00	10-20-70	19.15		
				02-24-71	19.08		0.07
				11-05-71	20.44	1.36	
				11-17-72	21.76	1.32	
				11-12-73	20.78		0.98
19-51-101	KCA	80	830.00	10-19-70	16.35		
				02-24-71	17.16	0.81	
				11-05-71	17.46	0.30	
				11-16-72	18.12	0.66	
				11-12-73	18.56	0.44	
19-51-901	KCTM	62	725.00	10-20-70	34.13		
				02-24-71	34.18	0.05	
				11-05-71	35.70	1.52	
				11-17-72	36.65	0.95	
				11-12-73	35.70		0.95

WISE COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE - CONTINUED

\* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING

MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
19-52-401	KCTM	115	872.00	11-12-74	34.58		1.12
				10-20-70	44.62		
				02-24-71	40.50		4.12
				11-05-71	43.30	2.80	
				11-12-73	42.58*		0.72
				11-13-74	41.47		1.11
19-53-101	KCA	178	800.00	10-19-70	45.94		
				02-25-71	45.70		0.24
				11-05-71	45.86	0.16	
				11-17-72	52.22	6.36	
				11-12-73	49.55		2.67
				11-13-74	50.24	0.69	
19-54-401	KCTM	240	1038.00	10-20-70	69.33		
				11-12-73	188.30	118.97	
19-60-401	KCA	226	753.00	10-20-70	165.31		
				02-24-71	166.12*	0.81	
				11-04-71	162.00		4.12
				11-17-72	161.66*		0.34
				11-12-73	160.00*		1.66
				11-12-74	160.86	0.86	
19-60-601	KCPA	140	782.00	10-21-70	26.52		
				02-24-71	29.90	3.38	
				11-05-71	29.90		
				11-17-72	78.47	48.57	
				11-12-73	76.52		1.95
				11-12-74	75.94		0.58
19-61-201	KCPA	360	920.00	10-21-70	220.20		
				02-24-71	223.24	3.04	
				11-05-71	225.16	1.92	
				11-12-73	228.35*	3.19	
				11-12-74	243.95*	15.60	

WISE COUNTY

WATER LEVEL MEASUREMENTS, IN FEET, BELOW LAND SURFACE  
 \* DENOTES WELL PUMPED RECENTLY OR NEARBY WELL PUMPING  
 @ MEASUREMENT QUESTIONED DUE TO BORE HOLE OR WELL ENTRY CONDITIONS

STATE WELL NUMBER	AQUIFER CODE	DEPTH OF WELL	ELEVATION OF LAND SURFACE	DATE	MEASUREMENT	CHANGE IN WATER LEVEL FROM PREVIOUS MEASUREMENT	
						DECLINE	RISE
19-34-801	KCA	70	1000.00	10-19-70	46.42		
				02-24-71	46.80	0.38	
				11-05-71	47.00	0.20	
				11-16-72	51.70	4.70	
				11-10-73	50.05		1.65
				11-12-74	46.89		3.16
19-35-701	KCA	96	910.00	10-19-70	35.76		
				02-24-71	36.22	0.46	
				11-05-71	37.28	1.06	
				11-16-72	37.96	0.68	
				11-10-73	35.32		2.64
				11-12-74	32.18		3.14
19-37-901	KCA	335	990.00	10-20-70	227.96		
				02-24-71	228.18	0.22	
				11-17-72	230.80	2.62	
				11-10-73	229.30		1.50
				11-13-74	229.05		0.25
19-42-101	KCA	70	1020.00	10-19-70	22.24		
				02-24-71	22.47	0.23	
				11-05-71	23.30	0.83	
				11-10-73	22.52		0.78
				11-12-74	22.15		0.37
19-42-801	KCA	70	950.00	10-19-70	7.84		
				02-24-71	7.40		0.44
				11-05-71	6.00		1.40
				11-16-72	7.66	1.66	
				11-10-73	5.62		2.04
				11-12-74	4.40		1.22
19-43-601	KCA	205	920.00	10-19-70	89.12		
				02-24-71	89.43	0.31	
				11-05-71	93.50	4.07	
19-43-603	KCA	180	920.	11-17-72	92.38		
				11-10-73	126.77	34.39	
				11-13-74	116.80		9.97
19-44-701	KCA	440	1070.00	10-19-70	257.86		
				02-24-71	259.20	1.34	

WISE COUNTY

GROUND WATER QUALITY ANALYSES

STATE WELL NUMBER	19-34-801	19-37-901	19-42-801	19-43-601
DATE OF COLLECTION	11/16/72	11/17/72	02/24/71	02/24/71
AQUIFER CODE	KCA	KCA	KCA	KCA
WELL DEPTH	70	335	70	205
TEMPERATURE-F	62	58	68	68
TEMPERATURE-C				
SILICA (MG/L)	23.0	19.0	25.0	18.0
CALCIUM (MG/L)	195.0	77.0	78.0	235.0
MAGNESIUM (MG/L)	8.0	16.0	25.0	125.0
SODIUM (MG/L)	85.0	31.0	77.0	103.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	343.0	306.0	323.0	510.0
SULFATE (MG/L)	72.0	56.0	20.0	384.0
CHLORIDE (MG/L)	216.0	7.0	125.0	350.0
FLUORIDE (MG/L)	.2	.3	.9	.6
NITRATE (MG/L)	30.0	1.0	.4	19.0
IRON (MG/L)				
PH	7.2	7.4	7.8	7.2
DISSOLVED SOLIDS (MG/L)	797.8	357.7	510.1	1485.3
PHENOL. ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	281.0	251.0	265.0	416.0
TOTAL HARD CAC03	520.0	257.0	299.0	1100.0
% SODIUM	26.24	20.72	36.02	16.91
SAR	1.6	.8	1.9	1.3
RSC	.0	.0	.0	.0
SPECIFIC CONDUCTANCE	1330.0	567.0	858.0	2140.0



WISE COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	19-43-601	19-43-603	19-45-301	19-50-601
DATE OF COLLECTION	11/05/71	11/10/73	11/17/72	02/24/71
AQUIFER CODE	KCA	KCA	KCA	GAL
WELL DEPTH	205	180	370	70
TEMPERATURE-F			60	68
TEMPERATURE-C				
SILICA (MG/L)	20.0	19.0	13.0	18.0
CALCIUM (MG/L)	228.0	183.0	25.0	66.0
MAGNESIUM (MG/L)	142.0	108.0	12.0	13.0
SODIUM (MG/L)	118.0	68.0	83.0	23.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	540.0	530.0	270.0	178.0
SULFATE (MG/L)	419.0	288.0	51.0	32.0
CHLORIDE (MG/L)	394.0	230.0	7.0	38.0
FLUORIDE (MG/L)	.7	.5	.2	.2
NITRATE (MG/L)	.4	2.7	.4	33.0
IRON (MG/L)				
PH	7.3	7.3	7.5	7.2
DISSOLVED SOLIDS (MG/L)	1587.6	1159.8	324.3	310.7
PHENOL. ALK. CAC03	.0	.0	.0	.0
TOTAL ALK. CAC03	443.0	434.0	221.0	146.0
TOTAL HARD CAC03	1160.0	900.0	112.0	216.0
% SODIUM	18.20	14.10	61.77	18.65
SAR	1.5	.9	3.4	.6
RSC	.0	.0	2.1	.0
SPECIFIC CONDUCTANCE	2300.0	1760.0	532.0	514.0

WISE COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	19-50-701	19-51-101	19-51-901	19-52-401
DATE OF COLLECTION	02/24/71	11/16/72	02/24/71	11/05/71
AQUIFER CODE	KCTM	KCA	KCTM	KCTM
WELL DEPTH	50	80	62	115
TEMPERATURE-F	68	56	68	
TEMPERATURE-C				
SILICA (MG/L)	24.0	19.0	18.0	21.0
CALCIUM (MG/L)	85.0	113.0	76.0	102.0
MAGNESIUM (MG/L)	19.0	26.0	47.0	12.0
SODIUM (MG/L)	107.0	128.0	41.0	42.0
POTASSIUM (MG/L)				
MANGANESE (MG/L)				
BORON (MG/L)				
BICARBONATE (MG/L)	510.0	355.0	345.0	339.0
SULFATE (MG/L)	36.0	57.0	87.0	39.0
CHLORIDE (MG/L)	41.0	219.0	55.0	41.0
FLUORIDE (MG/L)	1.0	.2	.1	.4
NITRATE (MG/L)	7.5	.4	23.0	11.0
IRON (MG/L)				
PH	7.5	7.2	7.4	7.4
DISSOLVED SOLIDS (MG/L)	571.2	737.1	516.7	435.0
PHENOL. ALK. CaCO3	.0	.0	.0	.0
TOTAL ALK. CaCO3	420.0	291.0	381.0	278.0
TOTAL HARD CaCO3	289.0	388.0	381.0	304.0
% SODIUM	44.50	41.72	18.89	23.11
SAR	2.7	2.8	.9	1.0
RSC	2.5	.0	.0	.0
SPECIFIC CONDUCTANCE	888.0	1270.0	817.0	690.0



WISE COUNTY

GROUND WATER QUALITY ANALYSES--Continued

STATE WELL NUMBER	19-58-401
DATE OF COLLECTION	11/12/73
AQUIFER CODE	KCTM
WELL DEPTH	240
TEMPERATURE-F	
TEMPERATURE-C	
SILICA (MG/L)	17.0
CALCIUM (MG/L)	69.0
MAGNESIUM (MG/L)	49.0
SODIUM (MG/L)	83.0
POTASSIUM (MG/L)	
MANGANESE (MG/L)	
BORON (MG/L)	
BICARBONATE (MG/L)	500.0
SULFATE (MG/L)	56.0
CHLORIDE (MG/L)	62.0
FLUORIDE (MG/L)	.3
NITRATE (MG/L)	.4
IRON (MG/L)	
PH	7.6
DISSOLVED SOLIDS (MG/L)	582.5
PHENOL, ALK. CAC03	.0
TOTAL ALK. CAC03	413.0
TOTAL HARD CAC03	375.0
% SODIUM	32.57
SAR	1.8
RSC	.7
SPECIFIC CONDUCTANCE	969.0

WISE COUNTY  
SUMMARY OF GROUND WATER QUALITY  
AQUIFER KCA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION Mg/L	MAXIMUM CONCENTRATION Mg/L	MEAN CONCENTRATION Mg/L	MEDIAN CONCENTRATION Mg/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	10.00	25.00	17.50	16.00	40.00	10
CALCIUM (CA)	12.00	235.00	109.50	84.00	30.00	10
MAGNESIUM (MG)	3.00	142.00	44.10	14.00	20.00	10
SODIUM (NA)	27.00	129.00	77.90	88.00	50.00	10
BICARBONATE (HCO3)	264.00	540.00	380.90	341.00	30.00	10
SULFATE (SO4)	21.00	419.00	114.00	26.00	20.00	10
CHLORIDE (CL)	6.00	394.00	128.70	48.00	20.00	10
FLUORIDE (F)	0.10	0.70	0.27	0.20	30.00	10
NITRATE (NO3)	0.00	82.00	17.51	1.50	30.00	10
TOTAL DISSOLVED SOLIDS (TDS)	282.30	1587.61	697.79	432.29	20.00	10
HARDNESS (CAC03)	56.00	1160.00	454.70	317.00	20.00	10
SPECIFIC CONDUCTANCE	555.00	2300.00	1292.57	783.00	28.57	7
PH	6.80	8.00	7.26	7.20	40.00	10
PERCENT SODIUM	14.13	81.98	35.91	21.10	30.00	10
SAR	0.62	7.32	2.41	1.35	30.00	10
RSC	0.00	3.79	0.95	0.00	30.00	10

WISE COUNTY

SUMMARY OF GROUND WATER QUALITY--Continued

AQUIFER KCA

CONSTITUENT OR PROPERTY	MINIMUM CONCENTRATION MG/L	MAXIMUM CONCENTRATION MG/L	MEAN CONCENTRATION MG/L	MEDIAN CONCENTRATION MG/L	PERCENTAGE OF SAMPLES IN WHICH CONCENTRATION EXCEEDED AVERAGE	NUMBER OF SAMPLES FOR WHICH CONSTITUENT WAS PRESENT
SILICA (SI02)	17.00	25.00	20.00	19.00	28.57	7
CALCIUM (CA)	66.00	183.00	95.71	78.00	28.57	7
MAGNESIUM (MG)	13.00	108.00	41.00	26.00	28.57	7
SODIUM (NA)	23.00	128.00	75.28	77.00	42.85	7
BICARBONATE (HCO3)	178.00	530.00	391.57	355.00	28.57	7
SULFATE (SO4)	20.00	288.00	82.28	56.00	28.57	7
CHLORIDE (CL)	38.00	230.00	110.00	62.00	42.85	7
FLUORIDE (F)	0.10	1.00	0.45	0.30	42.85	7
NITRATE (NO3)	0.40	33.00	9.62	2.70	28.57	7
TOTAL DISSOLVED SOLIDS (TDS)	310.72	1159.80	626.90	571.26	28.57	7
HARDNESS (CAC03)	216.00	900.00	406.85	375.00	14.28	7
SPECIFIC CONDUCTANCE	514.00	1760.00	1010.85	888.00	28.57	7
PH	7.20	7.80	7.42	7.40	28.57	7
PERCENT SODIUM	14.10	44.50	29.49	32.57	42.85	7
SAR	0.67	2.82	1.70	1.86	42.85	7
RSC	0.00	2.55	0.46	0.00	14.28	7

WISE COUNTY

REPORTED MUNICIPAL AND INDUSTRIAL GROUND WATER PUMPAGE

YEAR	MUNICIPAL PUMPAGE (ACRE-FEET)	INDUSTRIAL PUMPAGE (ACRE-FEET)	MUNICIPAL AND INDUSTRIAL PUMPAGE (ACRE-FEET)
1955	444.06	96.78	540.84
1956	454.38	96.78	551.16
1957	520.00	96.78	616.78
1958	598.62	164.24	762.86
1959	437.29	134.41	571.70
1960	496.65	171.03	667.68
1961	451.14	168.27	619.41
1962	543.17	166.94	710.11
1963	631.32	78.10	709.42
1964	571.05	155.72	726.77
1965	584.22	155.50	739.72
1966	444.57	155.50	600.07
1967	258.45	155.05	413.50
1968	250.31	154.00	404.31
1969	289.81	154.00	443.81
1970	283.90	154.61	438.51
1971	297.88	156.38	454.26
1972	319.29	141.00	460.29
Total	7,876.11	2,555.09	10,431.20
GRAND TOTAL	1,070,824.38	273,351.04	1,344,175.42